THE MEDICAL JOURNAL OF AUSTRALIA

VOL. II.—43RD YEAR SYDNEY, SATURDAY, OCTOBER 6, 1956 No. 14

Table of Contents.

HYPOTHERMIA CONTROL WITH AN IMPROVED PLASTIC BLANKET.

By M. H. CASS,

Royal Children's Hospital, Melbourne.

IN a previous report various techniques, which have been described for the induction and control of hypothermia, were critically examined, and reasons were given for the final decision to employ surface cooling with multiple rubber blankets. These small blankets could be applied more closely to the patient than a single large blanket, with better heat transfer. The chest could be exposed for operation by unwrapping the blanket around the thorax while maintaining the blanket coverage of the rest of the body, to permit continual control of the degree of hypothermia and allow rewarming to commence while the operation was still in progress (Cass *et alii*, 1956).

The blankets fitted an average adult, but were far too large and cumbersome for a child. In view of the wide range of sizes required if the blankets were to be used on children, it was decided to construct a blanket on an entirely different pattern using plastic film.[1]

[1] Vynex Vinyl Film, 0·006 inch laminated to 0·006 inch, supplied by Imperial Chemical Industries of Australia and New Zealand, Limited.

Use of Plastic Film.

The first blanket consisted of two plastic bags,[1] one inside the other, with the edge of the opening in the inner bag sealed to the edge of the opening in the outer bag. Polythene tubes of three-eighths of an inch external diameter were inserted through the bottom edge of the outer bag—one for a water inlet and several others to serve as water outlets. The bag was four feet long and had an inner circumference of 30 inches. The patient was placed in the inner bag up to the neck, and water was pumped from a reservoir to circulate through the space between the two bags. For a small child a movable kidney rest, placed under the bag just below the level of the feet, was elevated until the circulating water pooled around the child to cover it completely.

This bag was used on three children, and the rate of cooling, the temperature overshoot after cooling ceased, and the rate of active rewarming are given in Table I.

Difficulty was experienced in sliding large children into the bag, while to expose the operation site it was difficult to slide the child out again. In exposing the chest, the back was uncovered also, so that the only effective surface area remaining in the bag to permit temperature control was that below the level of the waist.

To overcome the need to move the child in exposing the chest, and at the same time to maintain the back of the

[1] Made by Plastalon, Proprietary, Limited.

TABLE I.
Results with Plastic Bag.

Case Number.	Patient's Age. (Years.)	Weight. (Kilograms.)	Cooling Rate (Degrees Centigrade per Hour)	Water Temperature. (Degrees Centigrade.)	Stabilization.		Active Rewarming with Chest Covered. (Degrees Centigrade per Hour.)
					Temperature Overshoot. (Degrees Centigrade.)	Time Required. (Minutes.)	
I	3½	13·6	4·0	19	0·7	18	2·5
II	1	7·5	4·6	3	1·5	19	2·0
III	3½	12·7	5·5	16	1·3	13	3·6

thorax in contact with circulating water, two small channelled blankets[2] were made from plastic film. The child was inserted into the bag to the umbilicus, and one blanket was placed under the thorax and the second over the front of the chest. To expose the chest, only the small top blanket needed to be moved.

This combination was used on two patients (Table II), but the cooling rate deteriorated. This was attributed to the fact that when the channelled blankets were distended by the circulating water, contact between patient and water was limited to the tops of the channels in the bottom blanket and the lower surfaces of the channels in the top blanket.

TABLE II.
Results with Plastic Bag and Channelled Plastic Blankets.

Case Number.	Patient's Age. (Years.)	Weight. (Kilograms.)	Active Cooling.				Stabilization.			Active Rewarming.	
			Rate before Chest Exposed. (Degrees Centigrade per Hour.)	Water Temperature. (Degrees Centigrade.)	Rate after Chest Exposed. (Degrees Centigrade per Hour.)	Water Temperature. (Degrees Centigrade.)	Temperature Overshoot. (Degrees Centigrade.)	Time. (Minutes.)	Water Temperature. (Degrees Centigrade.)	During Operation.	After Operation. (Degrees Centigrade per Hour.)
IV	3	11·5	3·9	4	—	—	2·8	28	40	3·9° C. in 38 minutes.	9
V	9	21·5	2·9	16	4·9	15	1·0	24	28	1·0° C. in 35 minutes.	6·2

New Plastic Blanket.

The small blankets and bag were discarded, and a single large non-channelled blanket[2] was designed. This blanket consists of two sheets of plastic film sealed around the edges and along the lines, as shown in the diagram (Figure I) to give two inlet channels and four wide outlets. Two air vents are provided to permit release of any air trapped in the blanket while the water is circulating. In addition there is a sling consisting of a strong sheet of the plastic film with cords attached along one edge, and several rows of rings extending along the other edge and inwards from that edge (Figure II).

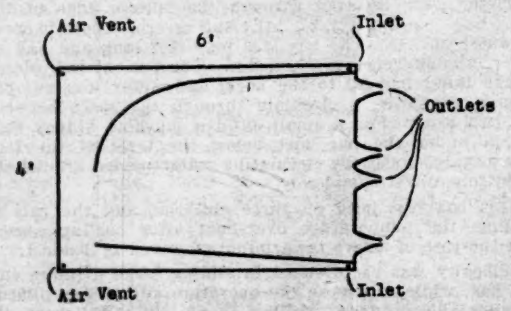

FIGURE I.
Design of the plastic blanket.

Cooling.

The sling is placed on the operating table with the blanket on top of it (Figure II), and the patient is wrapped in the blanket with only the head and neck exposed. The sling encircles both, and the cords are tied through the appropriate row of rings to secure the blanket comfortably, but not too tightly, around the patient. The water pump is turned on and the kidney rest, placed across the table under blanket and sling just below the level of the feet, is raised until the patient is completely submerged in water (Figure III).

Surgical Exposure.

To expose the chest the pump is stopped and the kidney rest is lowered to empty the blanket and so make it easier to handle. The cords over the chest are released and the upper parts of the sling and blanket are unwrapped to expose the operating area. The free blanket edges, which have been covering the chest, are folded under the patient. The edges of the sling are folded under the patient with the cords passing under the chest, but over the surface of the blanket. The cords are tied through an appropriate row of rings so that the blanket is still enclosed in the sling. This prevents the folded blanket edges from being displaced from beneath the patient when the water circulation is restarted, while the inlet channels ensure that the water circulates in this area. The kidney rest is raised again so that water covers the abdomen and legs still enclosed in the blanket (Figure IV). By this means water at any temperature can be circulated while the operation is in progress.

Rewarming.

When operation has been completed and the wound dressed, the blanket can be emptied temporarily while the chest is covered with the blanket to hasten rewarming.

The Blanket Fits Any Patient.

With the rows of rings in the sling it is possible to vary the circumference enclosed by the blanket to suit any patient, while the kidney rest placed just below the level of the feet eliminates the need to fill the whole length of the blanket for a short patient.

The water pump is a simple motor-driven centrifugal pump[1] fitted with three delivery tubes (each with a tap) and a bypass to short-circuit the whole output from the pump back to the reservoir. With this unit it is possible to vary the rate of flow through the blanket without obstructing the pump when slow rates of flow are required.

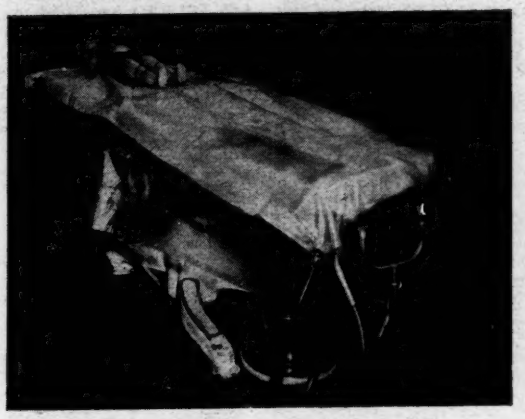

FIGURE II.

Showing sling (with rows of rings) and cooling blanket (with inlet and drainage tubes attached) opened up on the operating table to permit the doll to be placed in the position of a patient to be wrapped in the blanket.

Clinical Records.

This blanket and sling have been used on patients varying in size from a baby aged three months, weighing four kilograms, to a female aged forty-two years, weighing 67 kilograms (Table III).

FIGURE III.

"Patient" wrapped in the blanket and the sling tightened to suit the size of the "patient". The elevated kidney rest keeps a pool of cooling water around the "patient" while the rest of the blanket is empty.

CASE VI.—The patient was a boy, aged eleven and a half years, suffering from pulmonary stenosis. Cooling commenced at 9 a.m. (rectal temperature 37·4° C.), and the chest was exposed for operation at 10.30 a.m. (rectal temperature 30° C.). Active cooling stopped at 10.39 a.m. (rectal temperature 28·6° C.), when the temperature of the circulating water was raised from 6° to 28° C., and the patient was allowed to drift down to 27° C. by 10.53 a.m. The circulating water temperature was varied between 34° and 25° C. over the next thirty-seven minutes to stabilize the rectal temperature at 26° C. by 11.30 a.m. With circulatory occlusion for three minutes forty seconds, the pulmonary valvotomy was performed under direct vision through the pulmonary artery. After the pulmonary artery had been sutured, warming commenced at 12.22 p.m. (rectal temperature 26·2° C.). At 1.10 p.m. (rectal temperature 27·2° C.) operation was completed and the chest was covered with the blanket. Rewarming stopped at 2.30 p.m. (rectal temperature 33·6° C.), and the patient was returned to the ward awake and crying at 3.12 p.m. (rectal temperature 37·5° C.).

CASE VII.—A female patient, aged forty-two years, was suffering from multiple cerebral aneurysms. Cooling commenced at 1.30 p.m. (rectal temperature 37·5° C.) and stopped at 3.03 p.m. (rectal temperature 32·3° C.). The patient was moved from the anæsthetic room to the operating theatre and placed on the operating table (rectal temperature 30·6° C.), and the downward drift was allowed to continue until 4.09 p.m. (rectal temperature 28·1° C.), when the pump was turned on to circulate water at 30° C. One minute later (rectal temperature 28° C.) ventricular fibrillation commenced, so the pump was turned off and the chest was exposed for emergency thoracotomy and cardiac massage. By 5.20 p.m. the temperature had dropped to 26·5° C. and cardiac massage was being maintained, so water at 43° C. was circulated through the blanket. At 5.35 p.m. a normal heart beat was restored, and at 6.28 p.m. (rectal temperature 28° C.) the water pump was turned off as the neurosurgical operation was in progress again. By 10.25 p.m. both cranial and thoracic incisions were closed, and the patient regained consciousness at 10.30 p.m. (rectal temperature 34·3° C.). The post-operative progress of the patient was satisfactory—there being no evidence of cerebral or cardiac damage—until death from cerebral hæmorrhage on the seventh day after operation. At the post-mortem examination a fourth cerebral aneurysm, undetected in life, was found to be the site of the terminal hæmorrhage.

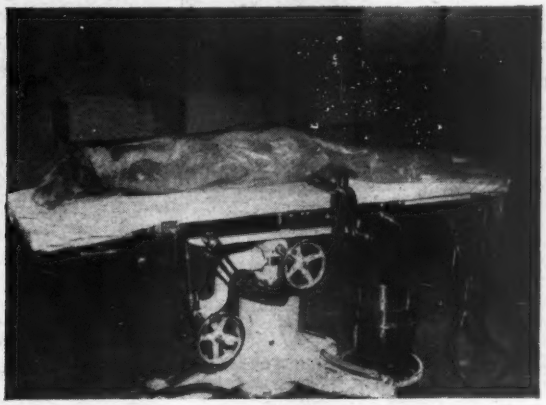

FIGURE IV.

Chest of the "patient" exposed for operation. Cooling continues with the kidney rest elevated to maintain a pool of water under the thorax and surrounding the arms, abdomen and legs.

CASE VIII.—The patient was a female, aged forty-two years, suffering from a large cerebral aneurysm. Cooling commenced at 11.4 a.m. (rectal temperature 37·4° C.) and stopped at 12.25 p.m. (rectal temperature 34·1° C.). Water at 33° C. was circulated until 1.15 p.m. (rectal temperature 32·1° C.); then the pump was stopped. By 2 p.m. the rectal temperature had fallen to 31·7° C., but rose spontaneously thereafter until the patient was returned to the ward after the neurosurgical operation at 7.15 p.m. (rectal temperature 34·8° C.).

CASE IX.—The patient was a male, aged eleven years, suffering from pulmonary stenosis. Cooling commenced at 9.30 a.m. (rectal temperature 37·4° C.), and the chest was exposed for operation at 11.17 a.m. (rectal temperature 31° C). Active cooling stopped at 11.30 a.m. (rectal temperature 30° C.), and water at 28° C. was circulated until 12.5 p.m. (rectal temperature 28·4° C.), when the temperature started to rise again, so the water temperature was dropped slowly over a period of twenty-five minutes to 22° C. Water at 22° C. was circulated for a further fifteen minutes; yet despite this, the rectal temperature rose to 29° C. by

[1] Supplied by K.L. Distributors, Proprietary, Limited.

TABLE III.

Cooling and Rewarming with the Large Plastic Blanket.

Case Number.	Weight. (Kilograms.)	Active Cooling.				Active Rewarming.	
		Before Chest Exposed.		After Chest Exposed.			
		Rate. (Degrees Centigrade per Hour.)	Water Temperature. (Degrees Centigrade.)	Rate. (Degrees Centigrade per Hour.)	Water Temperature. (Degrees Centigrade.)	During Operation.	After Operation. (Degrees Centigrade per Hour.)
VI	25	5	16→4	9·3	6	1·0° C. in 48 minutes.	4·8
VII	63	3·4	3	—	—	1·5° C. in 68 minutes.	Spontaneous rewarming.
VIII	67	2·4	5	—	—	Spontaneous rewarming.	Spontaneous rewarming.
IX	39	3·6	5→12	4·6	18	Fell 0·4° C. in 15 minutes, then rose 1·3° C. in 40 minutes.	3·6
X	14·5	3·7	16	3·9	16→13	Fell 0·5° C. in 17 minutes, then rose 1·7° C. in 30 minutes.	7
XI	4·2	13·0	20	6·5	21→27	Fell 0·3° C. in 1 minute, then rose 8·1° C. in 80 minutes.	—

TABLE IV.

Times for Stages of Hypothermia.

Case Number.	Cooling Before Chest Exposed.		Chest Exposed for Operation.		Rewarming after Operation.		Extra Time Due to Hypothermia. (Minutes.)
	Time. (Minutes.)	Temperature Fall. (Degrees Centigrade.)	Time. (Minutes.)	Minimum Temperature. (Degrees Centigrade.)	Time. (Minutes.)	Temperature Rise. (Degrees Centigrade.)	
VI	90	37·4→30·0	160	26·0	80	27·2→33·6	170
IX	107	37·4→31·0	178	28·4	55	29·8→33·1	162
X	62	37·8→34·0	128	27·8	32	29·5→33·2	94
XI	19	37·1→33·9	146	27·5			

12.58 p.m., when the pump was stopped and the valvotomy was performed with circulatory occlusion for three minutes forty-five seconds. At 1.20 p.m. the pulmonary artery was closed, so rewarming commenced (rectal temperature 28·9° C.). The temperature fell to 28·5° C. by 1.35 p.m., then rose to 29·8° C. by 2.15 p.m., when the chest was covered with the blanket. Rewarming stopped at 3.10 p.m. (rectal temperature 33·1° C.), and the patient was returned to the ward at 4 p.m. (rectal temperature 35° C.), conscious and cooperative.

CASE X.—The patient was a male, aged four years and two months, suffering from pulmonary stenosis. Cooling commenced at 9 a.m. (rectal temperature 37·8° C.), and the chest was exposed for operation at 10.2 a.m. (rectal temperature 34° C.). Cooling was continued until 11.10 a.m. (rectal temperature 29·6° C.), when the pump was turned off, the patient being left immersed in water at 13° C., and the valvotomy was performed during five minutes' circulatory occlusion. Rewarming commenced at 11.23 a.m. (rectal temperature 28·3° C.), but the temperature continued to fall until 11.40 a.m. (rectal temperature 27·8° C.). By 12.10 p.m. (rectal temperature 29·5° C.) the operation was completed and the chest covered with the blanket, and at 12.40 p.m. (rectal temperature 33·1° C.) rewarming stopped. The patient was returned to the ward, conscious and crying, at 1.10 p.m. (rectal temperature 36·3° C.).

CASE XI.—The patient was a male, aged three months, suffering from aortic stenosis. Cooling commenced at 9.15 a.m. (rectal temperature 37·1° C.), and the chest was exposed at 9.34 a.m. (rectal temperature 33° C.). At 10.3 a.m. (rectal temperature 29·6° C.) the water temperature was raised to 26° C., but since this stabilized the rectal temperature at 29·5° C. within two minutes, the water temperature was reduced again to 22° C. By 10.22 a.m. (rectal temperature 27·8° C.) the heart was fibrillating, so a transventricular valvotomy was performed quickly and massage and rewarming commenced. The rectal temperature continued to fall to 27·5° C. in one minute, then rose to 35·6° C. by 11.42 a.m. Although the right ventricle commenced to beat strongly after electric defibrillation and massage, the left ventricle remained in arrest, and attempts to revive the heart were abandoned at 12 noon.

Conclusions.

Previously it has been shown that better control of hypothermia by surface cooling can be obtained with the use of several small rubber blankets closely applied to the patient.

For application to children, the rubber blankets were abandoned in favour of a double-walled plastic bag. While the rate of cooling achieved with the bag was satisfactory (Table I), the manipulations necessary to expose the chest and the subsequent deterioration of the temperature control suggested that some modification was necessary. The compromise technique with the use of small blankets to cover the thoracic region still did not overcome all the difficulties, and at the same time reduced the efficiency (Table II). Furthermore, a series of bags and blankets would be necessary to suit patients ranging in size from infants to adults.

The final blanket design combines the advantage of ease of application, without reduced efficiency, with universal applicability (Table III). The one blanket can be used on any patient, *no matter how large or small.*

Once cooling has commenced it is possible to expose the chest and permit the operation to proceed while a satisfactory rate of cooling can be maintained. Efficient control of the final temperature is possible, while effective rewarming can be instituted during the later stages of the

operation. Table IV shows the time taken for the various stages of the induction of hypothermia and rewarming. In the last column is shown the extra anæsthetic time which has been added to the operating time by the use of hypothermia.

While there have been insufficient cases to permit a definite judgement to be made, the following impressions have been gained: (*a*) When water at a temperature of about 16° to 20° C. has been used from the beginning of the induction of anæsthesia, cooling has been established sooner than when the circulating water temperature has been 4° C. (*b*) Stabilization has been much easier to control with the use of the warmer water for initial cooling (Table V). In the last two cases the temperature

Table V.
Temperature Stabilization.

Case Number.	Cooling Stopped.		Stabilization.		
	Water Temperature. (Degrees Centigrade.)	Rectal Temperature. (Degrees Centigrade.)	Minimum Temperature. (Degrees Centigrade.)	Time After Active Cooling Stopped. (Minutes.)	Water Temperature. (Degrees. Centigrade.)
VI	6	28·6	26·0	51	34→28
VII	3	32·3	26·5	137	None circulated
VIII	5	34·1	31·7	95	33
IX	12	30·0	28·4	35	28
X	13	28·3	27·8	17	40
XI	22	27·8	27·5	1	29

overshoots have been only 0·5° and 0·3° C. respectively in two children in whom the overshoot might have been 2° to 4° C., to judge by previous reports (Swan *et alii*, 1953). (*c*) When warm water has been first circulated to stabilize the temperature there has been a pronounced increase in the cooling rate in the cases in which cooling has been carried out with water at 4° C. This is probably due to a sudden reflex peripheral vasodilatation induced by the warm water touching the cold skin, resulting in an increase in the blood flow through the subcutaneous tissues, which are still extremely cold.

This was seen in very dramatic fashion in Case VII, in which cooling was carried out with water at 3° C., when, at a temperature of 28·1° C., the water pump was turned on to circulate water at 30° C. After only one minute, when the rectal temperature still registered 28° C., the heart fibrillated. Without further warming or active cooling (the pump was turned off) the temperature fell to 26·5° C., so it can be assumed that the temperature of the blood returning to the heart at the time of onset of fibrillation was considerably lower than 26° C. This danger of too rapid cooling of the heart has been noted by other workers using extracorporeal circulatory cooling (Ross, 1954) and circulation of cold saline in the pleural cavity (Blades *et alii*, 1954).

Summary.

Reasons are given for abandoning multiple rubber blankets previously described for the induction and control of hypothermia by surface cooling.

Experiences with a plastic bag, and its modification by the addition of two channelled plastic blankets, are described in a series of five cases of hypothermia.

An entirely new design for a plastic blanket is given. This new blanket has been used on patients ranging in size from an infant weighing four kilograms to an adult weighing 67 kilograms.

With this new blanket, operation can be commenced on the exposed chest at a temperature of 33° to 34° C., while a satisfactory rate of cooling can be maintained to lower the temperature to 28° C. by the time the surgeon is ready to perform the definitive cardiac operation.

As soon as the cardiac operation is completed the patient can be rewarmed without disturbance of the surgeon while he is closing the chest incision.

Adequate cooling and warming rates can be achieved without danger of frost-bite or burns, since the circulating water temperature need never be below 4° C. or above 45° C.

Should ventricular fibrillation occur during cooling with the chest covered (highly unlikely if operation is commenced at a rectal temperature above 30° C. as suggested), the chest can be exposed rapidly for emergency thoracotomy. While cardiac resuscitation is in progress, effective rewarming can be commenced without disturbance to the surgeon or the patient.

Acknowledgements.

I wish to thank Mr. Russell N. Howard, senior surgeon, and Dr. Margaret McClelland, director of anæsthesia at the Royal Children's Hospital, Melbourne, for their cooperation and encouragement, and also Mr. R. S. Hooper and Mr. J. Curtis, neurosurgeons at the Royal Melbourne Hospital, who invited me to induce hypothermia in Cases VIII and VII respectively. I am most grateful for the generosity of Imperial Chemical Industries of Australia and New Zealand, Limited, who donated the plastic film, of K.L. Distributors, Proprietary, Limited, who donated the water pump and motor, and of Plastaion, Proprietary, Limited, who freely made available factory facilities and time to construct numerous variations of bags and blankets. Finally I wish to thank Professor R. D. Wright, whose intervention on my behalf enabled me to obtain a research grant from the Royal Children's Hospital, for the facilities and assistance provided for experimental work in the already overcrowded Department of Physiology at the University of Melbourne.

References.

Blades, B., and Pierpont, H. C. (1954), "A Simple Method for Inducing Hypothermia", *Ann. Surg.*, 140: 557.

Cass, M. H., Harper, A. F. A., and Wylie, R. G. (1956), "The Induction and Control of Hypothermia", M. J. Australia, 1: 134.

Ross, D. N. (1954), "Hypothermia", *Guy's Hosp. Rep.*, 103: 97.

Swan, H., Zeavin, I., Blount, S. G., and Virtue, R. W. (1953), "Surgery by Direct Vision in the Open Heart during Hypothermia", *J.A.M.A.*, 153: 1081.

THE IMPACT OF RADIOACTIVE IODINE ON THYROID SURGERY.

By F. F. Rundle, M.D., F.R.C.S.,

Unit of Clinical Investigation,[1] The Royal North Shore Hospital, Sydney.

It would be premature to suggest that the precise impact of radio-iodine on thyroid surgery has been clearly determined. However, the use of radio-iodine has now been widespread for over ten years, and some statement as to this impact may be made. It is certainly timely, because radio-iodine is exerting a profound influence on the practical everyday management of thyroid patients, and this is quite additional to its fruitful applications in research on the metabolism of iodine and thyroid physiology. The simple truth is that efficient thyroid work, by present-day standards, is impossible without its constant use.

Radio-iodine is, of course, used in two ways—namely, in tracer doses for diagnostic purposes, and in therapeutic doses in thyrotoxicosis and cancer of the thyroid, and to "knock- out" the normal thyroid and so lower metabolism in certain patients with severe cardiac disease. Very large series involving either tracer or therapy uses are now

[1] Work on radio-iodine is supported by a generous grant from Sir Edward Hallstrom, made through the New South Wales State Cancer Council.

being published in the world's literature, but we propose, in the main, to confine our remarks to our personal experiences with I^{131} in a clinic to which some 200 new thyroid patients are referred each year for assessment and treatment.

The first and overriding problem with thyroid patients is that of diagnosis. A high proportion of patients require review and discussion; often several visits over a period of a month or two are needed before the patient's problems can be full elicited, her chief disability estimated, and an appropriate therapeutic plan formulated. In a thyroid clinic the basic combination is a physician and surgeon, who repeatedly interrogate and examine each patient; but on this foundation a larger team can advantageously be built.

In our own clinic all the patients are examined by a physician-cardiologist as well as ourselves, their problems are reviewed and discussed weekly, and in general they are kept under observation until a satisfactory plan of management is arrived at. Unfortunately the clinical set-up is too often one-sided, being purely medical, surgical or radiotherapeutic. In fact, only recently has the radiotherapist been seriously brought into the picture, and it is quite clear that he must lean heavily for diagnostic guidance on his clinical colleagues. This splitting up of the territory into medical, surgical and radiation therapy is inimical to the patient's best interests, and is certainly retarding clarification of the relative advantages of the various methods of treatment.[1]

Influence of I^{131} Tracer Studies.

Our own practice is in general accord with that of other workers, and Table I shows that I^{131} uptake tests are now

TABLE I.

Special Tests Performed on or Arranged for 195 New "Thyroid" Patients Attending the Clinic from March 19, 1955, to February 26, 1956.

Test.	Number of Patients.
I^{131} uptake test (neck/thigh ratio)	177
Basal metabolic rate estimation	83
Laryngoscopic examination	9
Hæmoglobin estimation	49
Fluoroscopic screening of the chest	43
X-ray examination with a barium bolus	7
Chest X-ray examination	2
Leucocyte count and differential count	5
Electrocardiographic examination	13
X-ray examination with a barium meal	3

used more frequently than any other special aids to assessment. In particular we use a diagnostic I^{131} test (Rundle, *et alii*, 1956) twice as frequently as estimation of the basal metabolic rate, though the latter is still the better index of progress in patients already under treatment. In 90% of cases or more the radio-iodine uptake will tell us how the thyroid is functioning. It is quick, convenient and decisive, for example, in separating those patients with anxiety state and simple goitre from those with genuine thyrotoxicosis.

To put the matter into perspective we have classified the new patients who attended between January 1 and December 31, 1955 (Table II). Only the chief disability of each patient is counted. The patients appeared to comprise a representative sample.

Non-toxic goitres were present in 40% of cases. An anxiety state was the real disability in 27%. All the thyrotoxics including the "borderliners" make up less than 20% of the total. Incidentally, it is our impression—and it can be only an impression—that classical severe thyrotoxicosis is becoming relatively less common, and if this trend is real it will also affect the impact of radio-iodine.

As Table II shows, the patient who presents with an anxiety state and an associated goitre provides a common clinical problem. Twenty-seven of the 51 patients with anxiety states had incidental goitres, and 12 more had undergone thyroidectomy elsewhere without relief of symptoms.

Now it is in separating off this big and important group, the psychoneurotics, from the genuine thyrotoxics that I^{131} diagnostic tests have their most valuable application. Thyroidectomy should nearly always be avoided in the treatment of psychoneurotic patients with goitre.

In the past, it must be agreed, they have been subjected to much needless and even damaging surgery. A purely neurotic patient will complain of irritability, nervousness, tremor, sweating, palpitations, and even of a lump in the neck and dysphagia, the so-called *globus hystericus*. A small diffuse goitre may have been unearthed by the doctor. If the basal metabolic rate is estimated, it is often found to be raised, which lends support to the belief that thyroidectomy is justifiable.

TABLE II.

Diagnosis (Chief Disability) in 191 "Thyroid" Patients from January 1 to December 31, 1955.[1]

Diagnosis.	Number of Patients.
Non-toxic goitre — diffuse — compensatory	84
Non-toxic goitre — diffuse — established	
Non-toxic goitre — nodular — multi-nodule	
Non-toxic goitre — nodular — single nodule	
Anxiety state — associated goitre (27)	51
Anxiety state — previous thyroidectomy — 11 surgical	
Anxiety state — previous thyroidectomy — 1 by I^{131}	
Anxiety state — others (12)	
Toxic diffuse goitre	16
Toxic nodular goitre	9
Recurrent thyrotoxicosis	4
Borderline thyrotoxicosis	5
Ophthalmic Graves's disease	2
Hypothyroidism	8
Hashimoto's struma (*struma lymphomatosa*)	5
Carcinoma of thyroid (one other possible)	1
Obesity, hypertension and other non-thyroid diseases with or without goitre	5
Previously treated thyrotoxicosis—symptom-free	1

[1] There were actually 206 new "thyroid" patients, of whom 15 were referred for an I^{131} uptake test only, and were not assessed clinically.

In fact, thyroidectomy on such hysterical patients gives bad results. Therefore, whatever the basal metabolic rate, we had better think again before operating on the patient with prominent nervous symptoms, especially if the radio-iodine uptake is normal. Indeed, nowadays, when I^{131} tracer tests are available, surgeons should no longer send the patient with goitre and anxiety symptoms for a basal metabolic rate estimation.

In the investigation of two other types of goitre patient I^{131} uptake tests help us to avoid needless operation. There is the one who presents to her doctor complaining of severe anxiety symptoms with or without a small goitre, and who is given anti-thyroid therapy in the mistaken belief that thyrotoxicosis exists. Her symptoms fail to respond to therapy; in fact, the goitre enlarges. She is therefore referred for thyroidectomy. Such a patient presents a complete trap. There is a diffuse vascular goitre with bruit as well as tachycardia, tremor *et cetera*. If thyroidectomy is performed, examination of the specimen will reveal pronounced hyperplasia (thio-induced). But the patient will be back on the surgeon's doorstep promptly enough.

The basal metabolic rate is no help; but serial measurements of the I^{131} uptake are. The uptake falls progressively after such a patient's thiotherapy is discontinued. In thyrotoxics accurately dosed the reverse may apply, the index falling with treatment and rising with its cessation, so that here again I^{131} helps in the differentiation and selection of patients.

In a second group of patients—namely, those with compensatory goitre—the position is similar. The patient is

[1] In reply to a *questionnaire* concerning current methods of treating thyrotoxics, a prominent thyroidologist from a well-known hospital abroad replied: "The handling of hyperthyroidism in our hospital is pretty much on a catch-as-catch-can basis."

euthyroid or even mildly hypothyroid on clinical examination, and a sizeable diffuse goitre is present. Thyroidectomy may be suggested for cosmetic reasons, the patient being otherwise healthy. Nevertheless, surgical excision is the worst possible treatment, being followed by regrowth of the thyroid or, if this fails to occur, by permanent hypothyroidism. These compensatory goitres crop up occasionally in young women and have been difficult to detect in the past by other means.

Help Derived from Scanning after I^{131}.

If the leaden shield attached to a scintillometer is tapered down to a fine aperture, only the radioactivity emanating along a narrow axis from the body will be counted. The thyroid gland or the whole body may thus be scanned after a tracer dose of I^{131}. This technique has obvious applications in determining the activity or otherwise of the nodules in a nodular goitre, and also of detecting early metastases of thyroid cancers, if they are functioning, even before X-ray changes are apparent in bones and viscera.

Figure I, for example, shows the results of scanning the thyroid in a young woman with a one and a half inch single nodule in the right lobe. The count over the nodule is the same as the background count. It is "cold", and examination of sections revealed the structure of an undifferentiated fœtal adenoma.

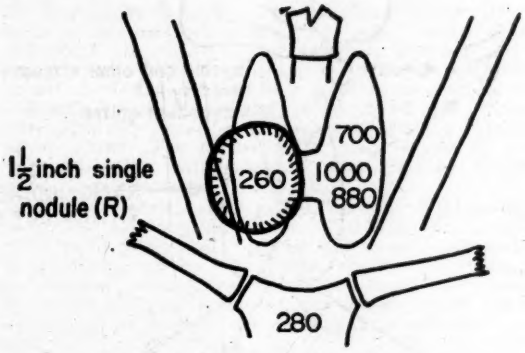

FIGURE I.

"Cold" nodule. Female patient, aged twenty years. Lump in neck for three years; clinically euthyroid. Neck-thigh ratio 2·4 : 1; basal metabolic rate +9%. The count over the nodule is of the same order as the background count (shown on the *manubrium sterni*). The nodule later proved to be a single benign adenoma.

By contrast, in the patient (Figure II) with a single two-inch nodule in the left lobe, scanning showed the nodule to be "hot", its count being about four times the background count. She was aged forty-eight years, and the nodule had been enlarging for the past six months. She was opposed to any operation. The usual advice with a single nodule is that it should be removed. But such a "hot" nodule is rarely malignant; also such a result from scanning would provide a reasonable basis for radio-iodine therapy.

The data in Figure III were from an elderly patient who had undergone a thyroidectomy eight years previously and reported with a smooth one-inch lump centred over the thyrohyoid interval. Scanning after a tracer dose confirmed that it was thyroid tissue. Similarly, in patients with a lingual thyroid, counts over the thyroid region after a tracer dose will tell the surgeon how radical he may be, without inducing myxœdema, when resecting the ectopic thyroid tissue.

The post-thyroidectomy patient (Figure IV) fell into a somewhat different category.

For six to eight months she had noticed symptoms suggestive of mild hypothyroidism, which had been relieved since a lump appeared on the left side of her neck about four weeks before she attended. Examination of the patient revealed a regrowth of thyroid tissue on the left side. It was obvious and could be seen from across the room. Scanning (Figure IV) showed that there was no functioning thyroid tissue on the right side, and the diagnosis of compensatory hyperplasia of the left stump was made. Thyroid extract, two grains per day, was prescribed. After eight weeks the regrowth had completely disappeared, and counts over the left stump had fallen to background level.

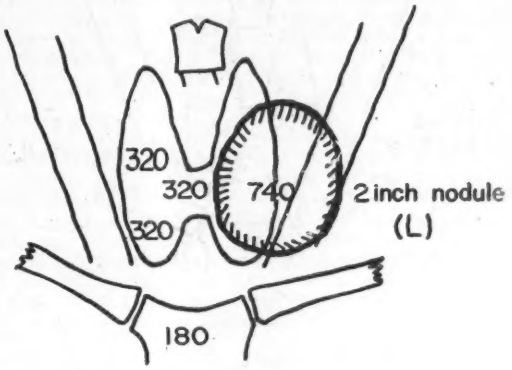

FIGURE II.

"Hot" nodule. Female patient, aged forty-eight years. Lump in neck for thirty years, enlarging for the past six months; patient clinically euthyroid. Neck to thigh ratio 1·5 : 1. The count over the nodule is approximately four times the background count.

Although radio-iodine therapy is not applicable, Figure IV gives point to the fact that tracer studies have largely helped to establish the effectiveness of thyroid therapy for many simple goitres. It is easy to demonstrate pronounced lowering of iodine uptake by the goitre if the dosage of thyroid extract is adequate. This should help to allay our impatience, and we must be patient because even with adequate dosage of thyroid, regression of such goitres may require months or a year or so to become complete.

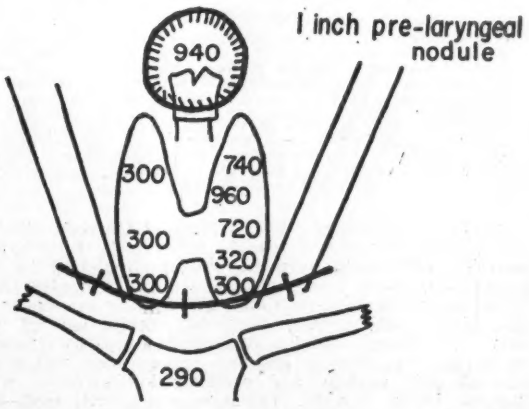

FIGURE III.

Compensatory hyperplastic thyroid tissue in thyroglossal tract. Female patient, aged sixty-five years. Thyroidectomy performed seven years earlier, and a lump had appeared in the front of her neck eight months before she attended. Euthyroid clinically. Directional counting revealed its high radioactivity after a tracer dose of I^{131}.

Impact of Therapeutic I^{131}—Thyrotoxicosis.

With regard to treatment, I^{131} is of course not applicable in non-toxic goitre, only in thyrotoxicosis and cancer,

so one may gauge its impact from the relative frequency of these groups (compare Table II). Thus it could have been considered as a therapeutic tool in only about 35 of the 191 patients in our sample, or rather less than 20%. That is the over-all picture. The chief therapeutic application of radio-iodine is in thyrotoxicosis.

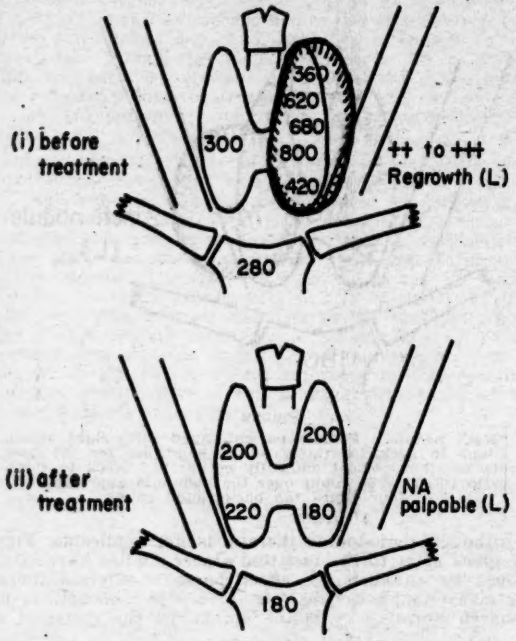

FIGURE IV.

Compensatory regrowth of left thyroid stump illustrating the use of I^{131} uptake counts as an index of response to thyroid therapy. Female patient, aged fifty-six years. Thyroidectomy 1941. Symptoms of mild hypothyroidism, relieved since a lump appeared in the left side of her neck four weeks earlier. There was a considerable regrowth of thyroid tissue palpable on the left side of the trachea. After eight weeks' treatment with thyroid extract, two grains per day, the regrowth was no longer palpable, and the radioactivity on the left side of the neck was much the same as the background.

Figure V summarizes the anatomy of Graves's disease. The central disorder is thyroid hyperplasia with hypersecretion of thyroid hormone which, circulating in the body fluids, affects every organ and tissue, whipping them up to pathological over-activity and leading eventually to damaging complications, including fibrillation of the auricles, thyrotoxic delirium, thyrotoxic myopathy *et cetera*. In a separate category are the eye changes, which are affected only slightly and probably indirectly by what happens in the thyroid. The three therapeutic tools—the thio drugs, radio-iodine and thyroidectomy—all act at thyroid level.

The hyperplastic thyrotoxic gland has a far greater avidity for iodine than normal. The radioactive iodine atoms enter the colloid and bombard the hyperplastic cells with β and γ rays and so destroy them. In general, the more intense the thyrotoxicosis, the more avidly the gland takes up administered I^{131}, and therefore the more certainly it encompasses its own destruction.

It is not proposed here to discuss the role of thiotherapy in thyrotoxicosis. We shall examine only the factors involved in the choice between I^{131} therapy and operation.

The following are the general factors: the patient's age and general condition (presence of complications or associated disease), the presence of pregnancy or lactation, the problem of I^{131} dosage relative to hypothyroidism, and the duration of treatment and what it entails. The last mentioned may be set out as follows:

Thyroidectomy:	I^{131} Therapy:
Risk of anæsthetic.	No anæsthetic risk or discomfort.
Five to seven days in hospital.	Patient ambulatory.
Scar.	No scar.
Hypothyroidism in 5% of cases.	Hypothyroidism in more than 10% of cases.

The individual factors involved are as follows: the patient's psyche; the type of toxic goitre (recurrent, diffuse, single nodule or multi-nodular, intrathoracic) and whether the goitre is large or small; the patient's location (city or country); the economic factor. The younger the thyrotoxic patient, the more we incline towards surgical rather than radiation thyroidectomy. There are two reasons for this. The first is the possible hazard of late carcinogenic effect from the I^{131}. The latent period here may be one of twenty years, and therefore in many clinics the treatment has been limited to patients with a life expectancy of twenty years or less. As a matter of fact, no

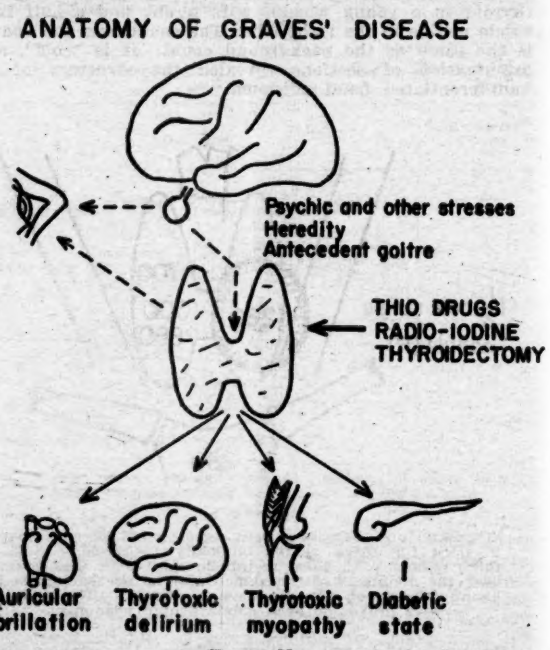

FIGURE V.

Anatomy of Graves's disease. The central disorder is the hyperplastic and hyperactive thyroid. I^{131} therapy, like surgery and the thio agents, acts at this level.

single case of carcinoma of the thyroid following I^{131} therapy has yet been reported, though the agent must have already been used in well over 10,000 patients. This particular risk may therefore have been overrated. Secondly, there is a distinctly higher incidence of hypothyroidism after radiation thyroidectomy than after operation, and it is obviously undesirable to inflict this lifelong disability on young people.[1]

When the patient's general condition is unsatisfactory because of the presence of complications or significant associated disease, I^{131} therapy is preferable to operation. On the other hand, pregnancy and lactation contraindicate the use of therapeutic I^{131} because of possible access of the agent, with consequent damage, to the fœtal or infant thyroid.

[1] Since this paper was written, Pochin *et alii* (*Brit. J. Radiol.*, 29: 31, 1956) and Abbatt *et alii* (*Lancet*, 1: 782, 1956) have reported the occurrence of acute leuchæmia in two previously thyrotoxic subjects, twenty-eight months and eighteen months after the administration of 7·1 millicuries and 17 millicuries of I^{131} respectively.

Treatment with I^{131} is more protracted than operative treatment, and in about one-sixth of patients its duration may be regarded as positively irksome, being of the order of nine to twelve months or more, depending on a variety of circumstances. With thyroidectomy the whole duration of treatment is usually less than three months, and there is less need for careful follow-up supervision afterwards.

The great advantages of I^{131} are that the anæsthetic risk is avoided and that the patient remains ambulatory and avoids a scar. However, hypothyroidism follows in at least 10% of cases, and there is some evidence that this figure will rise when patients are followed up for some years afterwards (Balls *et alii*, 1955). This is unfortunate, because without in any way disparaging I^{131} therapy it is fair to emphasize that hypothyroidism and myxœdema are major disabilities if neglected or overlooked, and their cardiac effects in particular may be quite serious. Moreover, because of unpredictable variations in the biological response to radiation, there seems to be little hope of reducing the incidence of post-therapy hypothyroidism by refined techniques of dosage (Balls *et alii*, 1955).

The choice for operation or I^{131} therapy must also be influenced by the standard of surgical facilities available. Unless his mortality rate since the advent of pre-operative thiotherapy has been nil and his complication rate 5% or less (we do not include minor wound hæmatomata or infections), the surgeon concerned had better consider giving up thyroidectomy for thyrotoxicosis.

The final choice is governed by individual factors; much depends on the patient's psyche. The type of toxic goitre is important. In recurrent thyrotoxicosis, especially with laryngeal nerve palsy, I^{131} therapy is obviously preferable to operation. Diffuse toxic goitres respond more uniformly and readily than do nodular goitres, and the dosage required and the duration of treatment are less than in nodular goitres. The diffuse goitre will regress or disappear, while the nodular goitre often persists though reduced in size and no longer toxic.

Very large nodular toxic goitres in otherwise healthy subjects are more efficiently dealt with surgically than by I^{131}. This applies also when the goitre is intrathoracic or is producing mechanical effects. On the other hand, large, vascular, toxic diffuse goitres are more safely dealt with by I^{131}, because except in the most expert hands thyroidectomy is fraught with considerable difficulty and hazard.

We would here emphasize, however, that it is oversimplifying the problem to make a blanket rule—namely, I^{131} therapy for toxic diffuse goitres, thyroidectomy for toxic nodular goitres. As is well known, the character of the gland when exposed at operation disagrees with the description from clinical palpation in too high a proportion of cases to render any such rule realistic.

Difficulty arises in treating with I^{131} patients residing in rural areas. Because of the health hazard and the care required in handling therapeutic doses, these are best given in special centres. The patient must first travel to the centre for assessment, and usually again later for treatment. Further, only 60% to 70% of patients respond to a single dose, and 10% or more of these become hypothyroid. Clearly I^{131} therapy would soon be discredited if the country patient or doctor harboured the belief that only a single drink was necessary and that the call for careful and prolonged follow-up could be disregarded.

The economic factor greatly favours I^{131} therapy, though to some extent it operates both ways. I^{131} therapy is cheaper, certainly, for the city dweller, but as against this her disability and possible interference with working capacity are more prolonged, though she can nearly always remain ambulatory. For the country dweller with railroad fares and hotel bills to pay the cost of the two treatments is less different.

In a word, numerous factors are involved, no rule of thumb is desirable, and the choice between I^{131} therapy and operation should be governed by how these factors operate in each individual case. Nevertheless, it is clear that I^{131} is making great inroads into the surgical treatment of thyrotoxicosis. However, opinion as to its precise role still differs widely, and it may be interesting to mention some present divergencies in treatment. Astwood (1956) states that of 115 new thyrotoxics examined by his division during the calendar year 1955, 49 were treated with antithyroid drugs alone and 62 were given radioactive iodine. None was referred for operation. Fairley (1955) and his group in Melbourne are using I^{131} exclusively in the treatment of toxic diffuse goitre. In the Mayo Clinic, on the other hand, only about 50% of patients with toxic diffuse goitre are treated with I^{131}, the remainder being treated surgically; moreover, thyroidectomy is still advised as the routine treatment for multinodular goitre with hyperthyroidism (Black, 1956). Werner (1956) reports that surgical thyroidectomy is still used in the treatment of 60% of thyrotoxics at the Presbyterian Hospital, and I^{131} therapy for 35%.

At the Massachusetts General Hospital in Boston and the Crile Clinic in Cleveland, patients with diffuse toxic goitres are treated with I^{131} and those with nodular toxic goitres by operation (Chapman and Maloof, 1955; Crile, 1954).

By contrast, in the Lahey Clinic only one-fifth of thyrotoxics are being treated with I^{131} (Bartels, 1956). The remaining four-fifths are treated surgically. It is relevant that radio-iodine therapy is less practicable in large clinics drawing patients from great distances, as the treatment is more protracted and requires repeated journeys back for assessment. With operation the patient may have to stay a week or so and undergo an operation, but that is the end of it.

Of the last 59 thyrotoxic patients attending our own clinic, 26 have undergone thyroidectomy, 23 have been treated with I^{131}, and 10 have been given thiotherapy or merely kept under review because the disease was "borderline".

In all 54 thyrotoxic patients have been treated with I^{131}; 34 responded fully to a single dose, 15 required two doses, and five have required three doses. The total number of treatments given was 79, and the average per patient was 1·45. The dosage range was four to 37 millicuries, and the average final dose was 12·4 millicuries. Three of 27 patients recently followed up more than one year after treatment require thyroid extract.

The following are some illustrative case reports.

Reports of Cases.

Case I.—A married woman, aged thirty-four years, with four children, resided 60 miles from Sydney. She complained of swelling in the neck, palpitations, shortness of breath, heat intolerance, and loss of over two stone in weight. Her husband was frequently unemployed and drank excessively, leaving her with the whole responsibility for caring for the home and her young family. She presented the picture of severe thyrotoxicosis with a diffuse goitre of moderate size. Her pulse rate was 132 per minute, her skin was moist, and she presented quick nervous movements and pronounced tremor.

On March 19, 1953, she attended as an out-patient, and was given a drink containing eight millicuries of I^{131}. That was her only treatment. Within four months she became euthyroid, and she has remained so since.

In this case the result by any standard was miraculous. One can imagine the problems involved if the patient had had to come to Sydney for operation: Where would she have placed her children? Who would have looked after the home? Where would she have obtained help during her convalescence?

Case II.—A female patient, aged sixty-five years, in poor general condition, presented with a multinodular, mildly toxic goitre and congestive cardiac failure. There were a four-inch nodule in the right lobe and smaller nodules elsewhere in the gland. The result of a basal metabolic rate estimation was within normal limits, but the uptake of I^{131} by her gland was raised. Fluoroscopic examination of her chest showed the heart to be generally enlarged; the liver edge was palpable, and the jugular venous pressure was raised three centimetres above the sternal angle.

On November 4, 1955, she was given a drink containing 15 millicuries of I^{131}. Two months later she had already experienced great subjective benefit, with almost complete relief of dyspnœa and palpitations. Her goitre was reduced in size by about one-half. Ankle œdema had disappeared,

and the liver was no longer palpable. This had been achieved with virtually no risk.

But there is another side to the picture. Not all toxic goitres respond so well or so promptly.

CASE III.—A female patient, aged twenty-seven years, presented with severe thyrotoxicosis and a very large toxic diffuse goitre. While under preliminary thiotherapy she developed acute myocarditis with pronounced electrocardiographic changes.

On July 27, 1955, she was given six millicuries of I^{131}. Because of persistent severe thyrotoxicosis, a further dose of 11 millicuries of I^{131} was given on November 17, 1955. When her condition was reassessed on January 14, 1956, she still presented a large diffuse goitre with moderate to severe thyrotoxicosis. Thus the overall picture after six months' therapy and 17 millicuries of I^{131} was one of some improvement and reduction in gland size, but she was still only part-way back to normal. A further therapeutic dose (20 millicuries of I^{131}) was given on February 22, 1956.[1]

This patient lives 140 miles away in the country and has already travelled to Sydney on numerous occasions for reassessment and treatment. It might be argued that the first treatment dose was too small, in view of the size and toxicity of her goitre; but in the presence of myocarditis it was deemed prudent to hasten slowly, severe exacerbations of thyrotoxicosis being not unknown after I^{131} therapy (Nelson *et alii*, 1952; Balls *et alii*, 1955). It may be noted that the average effective dose in large series of toxic diffuse goitres has ranged from five to 11·5 millicuries (Feitelberg *et alii*, 1950; Seed and Jaffe, 1953; Crile, 1954; Larsson, 1955).

CASE IV.—A male patient, aged fifty-five years, first presented on September 7, 1955, with fairly severe thyrotoxicosis, seven years after the complete remission of a previous attack treated by thiotherapy only. A barely palpable goitre, tachycardia (pulse rate 100 per minute), bilateral exophthalmos and pronounced tremor were present. The result of a basal metabolic rate estimation was +42%, and measurement of the neck-thigh ratio showed a thyroid uptake of I^{131} well above the normal range. The patient had recently proved allergic to both methyl thiouracil and "Neo-mercazole".

On September 21, 1955, he was given a drink containing seven millicuries of I^{131}. Three months later he was still severely thyrotoxic, and a further therapeutic dose of six millicuries of I^{131} was given. When he was examined on January 12, 1956, he was still losing weight and tremulous. There were frequent bowel actions, and his ankles swelled in the evenings. The pulse rate was 108 per minute, and the skin was warm and moist. He had lost four pounds in weight since his first attendance five months previously. During this period he had managed to do his work as a linotype operator, though with difficulty. The full effect of the second drink could not yet be assessed, but it was already clear that he would have been more expeditiously treated by thyroidectomy.

It will be seen that our own results are in general agreement with the data from large series recently reported in the world's literature (Table III).

I^{131} Therapy of Thyroid Cancer.

With regard to I^{131} therapy of thyroid cancer, though there are brilliant exceptions, the over-all picture is disappointing and its impact has been rather small. The consensus is that it is worth a trial in only about 10% or 12% of patients with proved thyroid cancer. In contrast to its use in the treatment of thyrotoxicosis, I^{131} in thyroid cancer does not compete with operation. Whenever operation is possible or practicable it should be given priority. I^{131} therapy is reserved for patients with proven pulmonary or skeletal metastases. It is more likely to be effective if the biopsy shows a follicular, rather well-differentiated cancer. In the occasional patient it may then produce miraculous results. With heavy dosage, pulmonary and osseous metastases vanish, the goitre disappears, vocal cord pareses recover, and follow-up studies after five years may show the effect to be enduring, as in the remarkable cases reported by Seidlin *et alii* (1949) and by Kramer *et alii* (1955).

[1] Five months later (July 23, 1956) her goitre was still large and toxic. Thyroidectomy was performed. The excised tissue weighed 100 grammes

Summary and Conclusions.

Careful clinical assessment of thyroid patients and the need for an individual plan of treatment are as necessary as ever, but I^{131} is exerting a profound influence on their day-to-day management. I^{131} diagnostic tests have already become the most frequently used of the clinician's special aids. They provide a prompt and decisive method of separating off the large and important group of patients with anxiety state and incidental goitre from the much smaller group with genuine thyrotoxicosis. They thus help to avoid unnecessary and harmful operation in the former group. Estimations of the basal metabolic rate, though still useful in other cases, lead the surgeon into error here.

I^{131} diagnostic tests aid in the detection of compensatory and frustration hyperplasias of the thyroid, pointing the way to non-surgical treatment. Information of value to the surgeon is obtained by "scanning" the thyroid gland, other tumours of dubious character in the neck, and sites of possible metastasis.

TABLE III.

I^{131} Therapy of Thyrotoxicosis: Data from Recently Reported Series.

Authors.	Year.	Number of Patients.	Alive and Euthyroid. (Percentage.)	Hypothyroid. (Percentage.)	Percentage Requiring One Treatment.
Seed and Jaffe	1953	257	63	11	38
Chapman and Maloof ..	1955	520	80	8	75
Clark and Rule	1955	628	83	17	56
Bloomfield *et alii*	1955	140	84	12	62
Total ..	—	1545	79	12	60

In the field of therapy, I^{131} is applicable to less than 20% of thyroid clinic patients, so that here its impact is less significant. Its chief therapeutic role is in thyrotoxicosis, in which it has become a powerful competitor with operation and antithyroid therapy. The hazard of carcinogenesis from I^{131} therapy may have been over-estimated, as no such case has yet been reported despite its exhibition for a long period in many thousands of patients. Its use is certainly indicated in "bad risk" patients past middle age. Otherwise no rule of thumb is possible. Factors concerned in the choice of treatment for individual patients are discussed.

In cancer of the thyroid, I^{131} therapy does not compete with operation. It is worth a trial in only some 12% of patients. Nevertheless, to the occasional patient with an irremovable mass in the neck and pulmonary or osseous metastases it gives miraculous benefit unobtainable by other means.

References.

ASTWOOD, E. B. (1954), personal communication.

BALLS, K. F., CHAMBERLAIN, R. H., ROSE, E., GORSON, R. O., and BLOUNT, H. C. (1955), "The Treatment of Thyrotoxicosis with Radio-Iodine", *Radiology*, 64: 858.

BARTELS, E. (1956), personal communication.

BLOOMFIELD, G. W., JONES, J. C., MACGREGOR, A. G., MILLER, H., WAYNE, E. J., and WEETCH, R. S. (1955), "Treatment of Thyrotoxicosis with Radioactive Iodine: Review of 140 Cases", *Brit. M. J.*, 2: 1223.

BLACK, B. M. (1956), personal communication.

CHAPMAN, E. M., and MALOOF, F. (1955), "The Use of Radioactive Iodine in the Diagnosis and Treatment of Hyperthyroidism: Ten Years' Experience", *Medicine*, 34: 261.

CLARK, D. E., and RULE, J. H. (1955), "Radioactive Iodine or Surgery in Treatment of Hyperthyroidism", *J.A.M.A.*, 159: 995.

CRILE, G. (1954), "The Treatment of Diseases of the Thyroid Gland", *Ann. Roy. Coll. Surg.*, 14: 158.

FAIRLEY, K. D. (1955), personal communication.

FEITELBERG, S., KAUNITZ, P. S., SILVER, S., SIMON, N., WASSERMAN, L. R., and YOHALEM, S. B. (1950), "Hyperthyroidism. Treatment with Radioactive Iodine", *Arch. Int. Med.*, 85: 471.

KRAMER, S., CONCANNON, J. P., EVANS, H. D., and CLARK, G. M. (1955), "Thyroid Carcinoma. A Report on the Diagnostic and Therapeutic Use of Radio-Iodine", *Brit. J. Radiol.*, 28: 307.

LARSSON, L. G. (1955), "Studies on Radioiodine Treated Thyrotoxicosis, with Special Reference to Behaviour of the Radioiodine Tracer Doses", *Acta radiol. Stockholm*, Suppl. 126.

NELSON, R. B., CAVENAGH, J. B., and BERNSTEIN, A. (1952), "A Case of Fatal Thyroid Crisis Occurring after Radioactive Iodine Therapy", *Illinois M. J.*, 101: 265.

SEED, L., and JAFFE, B. (1953), "Results of Treatment of Toxic Goitre with Radioactive Iodine", *J. Clin. Endocrinol.*, 13: 107.

SEIDLIN, S. M., ROSSMAN, I., OSHRY, E., and SEIGEL, E. (1949), "Radioiodine Therapy of Metastases from Carcinoma of Thyroid: 6-Year Progress Report", *J. Clin. Endocrinol.*, 9: 1122.

WERNER, S. C. (1956), personal communication.

A CLINICAL TRIAL OF A NEW ANTICOAGULANT FOR ORAL USE.

By W. McI. ROSE,
Royal Melbourne Hospital and Royal Women's Hospital, Melbourne,

AND

FRANK FORSTER,
Department of Obstetrics, Royal Women's Hospital, Melbourne.

A CLINICAL TRIAL has been conducted of a new coumarin anticoagulant provided by Geigy Laboratories under the name "G23350". The mode of action of this drug is similar to that of other coumarin compounds, so that control of dosage is by estimation of the degree of lowering of the prothrombin content of the blood. In this clinical trial the modified one-stage Quick test, with thromboplastin prepared from human brain, was employed. The therapeutic aim was to maintain the prothrombin level at between 10% and 30% of normal on the saline dilution curve.

The patients to whom this anticoagulant was given formed the following two main groups: one at the Royal Melbourne Hospital, in which the drug was used as a therapeutic measure, and the other at the Royal Women's Hospital, Melbourne, in which the use was purely for post-operative prophylaxis after Cæsarean section. In all, "G23350" was given to 49 patients (Table I). In eight of the therapeutic cases heparin was used in the first forty-eight hours; but in the other 41 cases "G23350" was the only anticoagulant used.

Dosage.

"G23350" is dispensed in almost tasteless tablets containing four milligrammes of the active ingredient. The tablets are deeply scored so that they may be easily broken in half. It is necessary, as with other coumarin compounds, to give loading doses in the first forty-eight hours. In the therapeutic group, the administration of an initial dose of 24 milligrammes (six tablets) and a second dose of 16 milligrammes (four tablets) given twenty-four hours later, was found to be a satisfactory routine. In the prophylactic group, there appeared to be greater sensitivity after Cæsarean section, and smaller doses, 16 milligrammes (four tablets) and eight milligrammes (two tablets) respectively, were required. Subsequent dosage depended upon estimation of the prothrombin level; but the full daily amount should be given as one dose and at approximately the same time each day. This is best done in the evening, so that one may act on the prothrombin estimation carried out during that day. A satisfactory scheme of daily maintenance dosage is given in Table II.

Results.

"G23350" has proved an effective anticoagulant in both therapeutic and prophylactic use. In the earlier cases daily prothrombin estimations were carried out, but later it was possible to maintain satisfactory control with estimations two or three times per week. The routine loading doses brought all except five cases into the therapeutic range of prothrombin levels within forty-eight hours. Smooth control was obtained in 33 cases. Undue sensitivity was found in five cases, while in 11 cases unexpectedly sharp rises in the prothrombin level (above 50%) occurred when a dose normally adequate had been given. This made fully effective control impossible. However, no toxic or side effects were seen in any patient, and in only one case untoward hæmorrhage was encountered. This was from the abdominal wound of a patient who had undergone Cæsarean section. At the time the prothrombin level was 10%. Hæmorrhage was controlled by a pressure dressing. When administration of the drug was stopped, the normal level of prothrombin was generally regained within forty-eight hours and in some cases within twenty-four hours.

TABLE I.
Indications for the Use of "G 23350".

Indications.	Number of Patients.
Cardiac infarction	22
Pulmonary infarction	3
Calf vein thrombosis	3
Femoral vein thrombosis	1
Post-operative prophylaxis	20

TABLE II.
Scheme of Daily Maintenance Dosage of "G 23350".

Prothrombin Level.	Dose.
10% to 15%	No tablets.
15% to 20%	2 milligrammes (0·5 tablet).
20% to 30%	4 to 8 milligrammes (1 to 2 tablets).
30% to 50%	8 to 12 milligrammes (2 to 3 tablets).

Discussion.

"G23350" is a safe and efficient anticoagulant when given by mouth. The required dose is much smaller than that of any other coumarin compound previously tried. It lowers the prothrombin level as speedily as does "Dindevan", and more rapidly than dicoumarin, ethylidene dicoumarin or "Tromexan". Recovery from low levels of prothrombin was speedy, and indeed this potential for rapid increase in the prothrombin level was the only real problem encountered in maintaining efficient control of therapy. The manufacturers claim that any given level of prothrombin is maintained for twenty-four hours before a rise occurs; but this was not supported by observations in some of our cases, in which unexpectedly sharp rises towards normal were seen when standard maintenance doses had been given. However, these occasional sharp rises in prothrombin level did not upset the clinical progress of the patient in any case. "G23350" represents a valuable addition to the coumarin compounds available for clinical use, because the small doses which are necessary reduce the likelihood of toxic reactions.

Summary.

A new anticoagulant of the coumarin type for oral administration has been put to clinical trial. It is active in very small dosage and has proved safe and effective when given to a series of 49 patients.

Acknowledgement.

The drug used in these trials was made available by the Australian representatives of J. R. Geigy, S.A., Basle, Switzerland. The authors wish to express their thanks to the house physicians whose help in the care of the patients was invaluable.

A SIMPLE MODIFICATION OF THE CLAUSEN HARNESS FOR ANÆSTHETIC MASKS.

By J. Christopher Edwards,
South Perth.

A problem which has confronted anæsthetists ever since the introduction of semi-closed and closed-circuit techniques is the securing of a clear airway and an airtight junction between the mask and the patient's face. In patients with well-developed jaws and a good set of teeth the original Clausen harness is adequate, provided that the head is carefully adjusted so that the natural airway remains patent. However, in less fortunate patients this is by no means always so. The anæsthetist is often reduced to supporting the patient's jaw by hand, a procedure which is tiring, and which prevents him from carrying out other necessary tasks during the administration of the anæsthetic. All those who move in anæsthetic circles will be acquainted with numerous ingenious devices which individual anæsthetists use to overcome this difficulty for their own patients. The difficulty can fortunately be overcome permanently by a simple modification of the Clausen harness, which works excellently with the "C.I.G." three-hooked mask.

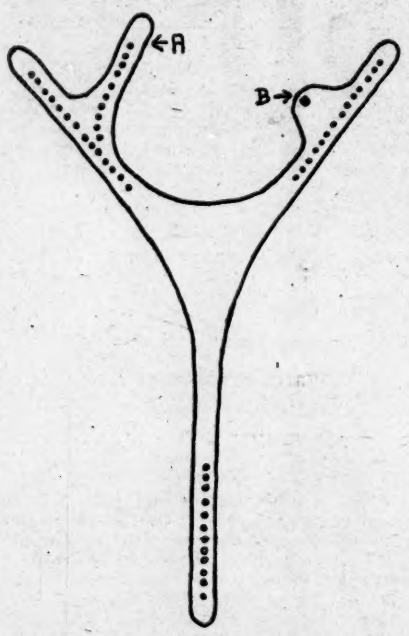

Figure I.
The modified harness with chin strap, one-quarter natural size. A, chin strap. B, "collar stud" fastener.

A little consideration will at once reveal the weakness of the Clausen harness. The single head strap tends to pull the mask up away from the chin, and at the same time to rotate it forwards away from the mouth, while the two mandibular straps, which counteract this tendency, act by depressing the mandible and thereby obstructing the airway. This difficulty is overcome by the design illustrated in Figure I, in which a chin strap is incorporated in the main structure of the harness. In this model the tension in the head strap is conveyed to the chin strap via the mask itself, and this support to the jaw prevents the mandibular straps from depressing the jaw. Also, the lateral expansion on the mandibular straps tends to press the inflated rubber pad of the mask into the shape of the face.

The chin strap is attached by a collar-stud fastener on to the opposite mandibular strap. I have found that the modified harness gives a clear airway and an airtight circuit with all types of adult jaw. In edentulous patients it is better to replace the patient's dentures or alternatively to use dummy rubber dentures. The harness can be easily made by the anæsthetist himself from sheet rubber.

A BRIEF SURVEY OF UNSKILLED FEMALE NURSING STAFF (NURSE ASSISTANTS) IN THREE SANATORIA FOR TUBERCULOSIS IN VICTORIA.

By W. Bolliger,
Heatherton Sanatorium, Melbourne.

In Australia as a whole there is at present considerable reflection on ways and means of improving the care of the aged and of the mentally ill. The nurse assistants in the mental hospitals and in the homes for the aged are drawn from the same section of the populace as the nurse assistants in the sanatoria. It is therefore thought that a survey of nurse assistants in sanatoria may be a guide to some of the problems involved in establishing homes for the aged or mental hospitals. After all, in the care of the aged and of the mentally ill not only are suitable buildings required, but also an adequate number of female staff. Hence it is as well to contemplate the type of personnel offering and to have some information on their coming and going.

The aged infirm and the mentally ill account for the vast bulk of the chronically ill. Because of the increasing numbers of the aged in the community the proportion of those needing prolonged hospital care is growing larger. Most of the nursing connected with this section of the community is carried out in Victoria by nurse assistants with little or no training.

Nurse assistants by their efforts make a vital contribution to the social services of this State. Without them the care of the chronically ill in homes for the aged, in mental asylums and in sanatoria could not be undertaken.

Discussion.

The three sanatoria investigated are all situated on the fringe of Melbourne, about eighty minutes from the city by public transport, and all have about 180 to 200 patients. They are all operated on similar lines. The wards are under the charge of qualified nursing sisters who direct the activities of the nurse assistants. To become a nurse assistant no previous experience is required. These women are engaged and after being given the appropriate uniform commence duty.

In sanatoria today little is required in the way of complicated nursing. With modern chemotherapy most patients are capable of going to the bath and toilet after three months' bed rest.

Compared with homes for the aged and mental hospitals the sanatoria probably have less struggle to obtain an adequate number of nurse assistants. However, the labour turnover for the three largest Victorian sanatoria, as shown in Table I, is revealing.

A pronounced seasonal trend is noticeable. Turnover is always higher in the summer months. It is most obvious among those aged less than twenty-five years.

Among the nurse assistants the following three approximate groups may be discovered: stable, semi-stable and unstable. The proportion of these three groups present in any sanatorium varies. It largely depends on the labour shortage. The high annual turnover is produced by the constant coming and going of the unstable and semi-stable groups.

Stable Group.

The stable group consists of those staying at least twelve months. From the standpoint of running an institution this is the important group, as it gives stability to the institution. They may be married women wishing to increase the family income, or widows or women living apart from their husbands. Others are single women who have nowhere to go and who are glad to be in a place with good accommodation where the work is not too hard and where comradeship is ready-made. A few have attempted to do their general training elsewhere, but have had to discontinue because of difficulty with examinations or because of an unhappy love affair.

TABLE I.

Sanatorium.	Nurse Assistant Establishment.	Turnover in 1954.	Number at Present on Staff with Twelve Months' Service.	Number at Present on Staff with Tuberculosis Nursing Certificate.
A	60	110%	27	19
B	60	110%	24	11
C	41	110%	25	20

One should mention among the stable those odd characters who because of some personality defect such as bouts of rage, periodic alcoholism or minor degrees of eccentricity *et cetera*, are unable to exist outside an institution which closes an eye to their oddities. These people, however, may otherwise be very satisfactory. Under this heading also come new arrivals in Australia, from both the United Kingdom and the Continent. A sanatorium is a convenient place in which to become accustomed to the Australian way of life and if necessary to learn English. So much for the stable group.

Semi-stable Group.

The semi-stable group comprises those persons who stay for a few months. Often they have a fairly definite aim in life. There are those contemplating matrimony who wish to be near their boy friends while final details are being arranged. Others may be waiting for divorces to be completed. Some are country girls using the sanatorium as a base from which to survey the city.

Other contributing sources for this group are forms of seasonal employment, such as the tourist resort boarding houses, the orchards and the canning factories. These all diminish their activities during the winter months and their female employees take jobs elsewhere.

Among the semi-stable may be encountered adventurous individuals working their way around Australia, or New Zealanders on their way to the United Kingdom. These may be very able people, qualified in such fields as teaching or shorthand and typing.

Unstable Group.

The unstable group is a collection of bizarre types and the most interesting and tragic of all. Briefly they consist of psychopaths of various degrees and kinds, chronic alcoholics, those of low intelligence and those escaping from some problem.

A type of amusing female rogue encountered is the "bed and breakfast" girl. She is engaged in the afternoon, spends the night in the nurses' home, and after breakfast silently disappears. These girls may be of quite good appearance and the unwary matron may easily be duped.

Comment.

From a contemplation of the foregoing three categories it is evident that institutions such as sanatoria play an additional role to merely treating patients with tuberculosis. They exercise a vital function in providing shelter and a means of contributing to human welfare for many women who might otherwise present arrant social problems. It is sometimes even possible to reclaim some who for long periods have been drifting from job to job, from institution to institution, and to change them from unstable to stable individuals. On occasions a period of nursing in a sanatorium has been responsible for girls' starting general training.

An attempt is being made in the sanatoria to raise the level of knowledge and to stimulate the interest of nurse assistants by means of lectures on elementary anatomy, physiology and allied topics. In general nurse assistants have no wish to go to these lectures and their mental interests lie in other fields. Some, however, profit sufficiently from these lectures to acquire the Certificate of Tuberculosis Nursing. This certificate has been instituted to give the nurse assistants a goal to attain. The possession of this certificate increases the status of the holder in the sanatorium and also results in a small increase in pay (£26 *per annum*).

From all that has been mentioned it must be obvious that the job of matron in a sanatorium is not an easy one.

Conclusions.

The labour turnover in the three sanatoria investigated is high and in all it is identical. Under present circumstances it will probably remain high because of the necessity of engaging many persons belonging to the semi-stable group.

However, the high labour turnover in sanatoria roughly parallels trends in industry, such as the retail trade and factories, where large numbers of women are employed. It is a manifestation of the present-day social and economic position in Victoria. In this State there is practically full employment, and factories and institutions compete with each other for skilled and unskilled labour. This high turnover reflects an instability of the populace as a whole, and in some an unwillingness to tolerate the disadvantages any job, however lucrative or otherwise attractive, may from time to time offer.

If the present level of prosperity continues—and it is to be hoped that it will—then certain conclusions may be drawn for institutions run with unskilled female nursing staff. To compete successfully with industry which attracts a similar type of person, such institutions must fulfil the following major criteria.

Firstly, pay must be adequate and must compare favourably with that offered by industry. Nurse assistants come here primarily to earn their living.

Good and attractive accommodation is essential. The provision of accommodation is the feature about this type of work which appeals to many suitable women who might otherwise be employed in industry. Amenities such as a tennis court help in retaining staff in somewhat isolated institutions.

Finally there must be ready access to entertainments such as dances and cinemas, or rapid transport to areas where such entertainment may be found. Nurse assistants are after all interested in finding human companionship outside the sanatorium.

Pay and accommodation in the sanatoria are at present of a good standard. Inadequacies of transport provide a source of irritation largely among the younger women, who are interested, especially at night, in going to various forms of entertainment.

In industry it has long been recognized that a major factor in the harmonious working of a factory is proper personnel selection. Personnel selection implies, amongst other things, that the employing body has a number of applicants to choose from. Matrons of hospitals for the chronically ill readily recognize desirable or undesirable applicants for positions as nurse assistants. However, unless pay and accommodation are at an attractive level and transport is satisfactory, such institutions are forced to engage women not likely to prove a success, purely because of a dearth of applicants, with detriment to the patient.

MUST EXECUTIVES BE EXPENDABLE?

By A. McQueen Thomson,
Melbourne.

All doctors are familiar with the stocky, forceful, successful businessman who, at the height of his power and responsibility, suddenly achieves his coronary occlusion.

The pressure of modern business *plus* our eating and living habits is taking an increasingly heavy toll of industry's most precious asset, its own skilled, highly trained and experienced executives. There is a tremendous shortage of capable executives, and there is a striking relationship between their health and their efficiency and survival.

The successful modern executive must approach close to being a superman. He has to combine keen business perception, balanced maturity of judgement, a sincere interest in and care for the individual worker, and a well-integrated social nature, and yet maintain a philosophy elastic enough to survive, without serious damage, the trials and tribulations of our unstable modern economy.

The Vulnerable Group.

The stress falls most heavily on the thirty-five to sixty year old executives, and it demands measures to guard and preserve the health of this most valuable group. It is true that the measures are such as should be applied to preserve the health of every individual; but in applying any new approach it is reasonable to start with the group in which the need appears greatest, just as with mass miniature radiography it is most rewarding to start first with the groups most exposed to risk.

Examining the Whole Man.

The essential requirement is a periodic examination of the "whole man", which consists of the following:

1. A clinical history, with special but by no means exclusive attention to the following symptoms: (*a*) Cardiovascular symptoms, particularly those of arterial degeneration, shortness of breath, pain on exertion, intermittent claudication *et cetera*. (*b*) Any of the symptoms of malignant disease: ulcers or sores that do not heal; persistent lumps anywhere; persistent cough or hoarseness; difficulty in swallowing; recent indigestion or change in type of established indigestion; any hæmorrhage or discharge; any change in bowel or bladder function; loss of appetite, loss of energy, loss of weight or persistent pain; in fact any change in any bodily function, however slight, without obvious cause, that persists for one month. In the executive group the more obvious of these classical signs are likely to have been dealt with promptly by the individual. It is the less obvious that will require watching. (c) Nervous symptoms, especially the nature of the reaction of the executive to stress.

2. A detailed clinical examination, again with particular care directed to the same three possibilities. The investigation should include a fundoscopic examination, a plasma cholesterol estimation, an electrocardiogram both before and after an exercise tolerance test unless gross abnormalities are detected before, an X-ray examination of the chest, of course, and a rectal examination with test for occult blood on the glove specimen amongst other things.

3. Advice based on the findings of the complete examination, especially with regard to habits of working and relaxing and of eating, and also on the symptoms that would require reporting to the doctor before the next periodic examination date.

Promoting the Service.

It is our job as doctors to make available such a service. In America its form ranges from a week's stay in a hospital for an "annual complete physical" down to the regular annual visit to the physician's office with the performing of all the tests that are indicated. However it is achieved, unless the physician shows keenness and real enthusiasm in promoting this service, it has no chance of being successful.

Intelligent industrial leaders are showing a growing interest in this new approach to the problem, and their task is the more difficult of the two.

The Company's Point of View.

It is good and unexceptional to provide the service; but any attempt by the company to persuade its executives to undergo the examination is likely to arouse only resentment and suspicion. For the same reason it is essential that the physician should have no direct connexion with the company and that he should make no reports to the company.

A company president has made the following statement:

> Our most valuable asset in the organisation is the men themselves. We deem it of paramount importance and a privilege to help develop in our executives a keen appreciation for the need of maintaining good health. The greatest advantage of periodic health examinations is the fact that the individual becomes aware of health problems existing in his age group and, through that awareness, develops an insight into his own needs. We believe that the success of our company program is due to two main factors. (i) The use of a diagnostician completely unrelated to the company itself, and (ii) the fact that the entire program is completely voluntary and of a confidential nature. No report of any kind is rendered to the company by the participating physician. We have found that by this approach the discussion of any serious health problems will be voluntarily initiated by the executive himself. It would be folly indeed to ask our executives to participate in a constructive program for their health if the information could be used to their own detriment.

The Human Problem.

Ultimately, the problems of motivation, of survival, of success, productivity and cooperation are human and individual problems that offer a great challenge to the practical application of preventive medicine.

There is within most men the desire to emulate the apparently tireless and indestructible titans of industry, with a brave front that acknowledges no barrier, physical or emotional, in the pursuit of success. The attempt to do so can have disastrous effects for the individual.

The Silent Partner.

The enlightened application of preventive medicine can provide for each executive a silent partner, not to make the rough smooth, but to enable him successfully to weather the storms and stresses with the minimum of damage and the maximum of success, health and happiness. Alert modern management should expect from preventive medicine a careful annual appraisal of the executives' health and efficiency and a maintenance of both at their optimum level.

Prevention and Productivity.

Preventive medicine, as a consultant to the individual executive, may well prove an important factor in productivity in a growing competitive economy. It can, in a large measure, determine the quality of performance and the survival and success of management groups, while fulfilling its chief function of the prevention of illness and suffering and the furthering of health and happiness.

It must be admitted that the foregoing applies with at least equal force to doctors themselves, who generally work too hard and, with a few notable exceptions, neglect their health and die too young.

Reviews.

Clinical Psychology: The Study of Persons. By Richard W. Wallen, Ph.D.; 1956. New York, Toronto and London: McGraw-Hill Book Company, Incorporated. 9" x 6¼", pp. 401. Price: $6.00.

This is a valuable contribution to the literature concerned with the training of clinical psychologists. Unlike most other texts, it aims at developing the student's skill in

eliciting and integrating many kinds of data about a single person. The author, in covering the topics of *rapport*, clinical sensitivity, information gathering, prediction and therapy, has stressed many of the practical problems faced by clinicians. The chapter by Roy W. Whitman, M.D., on the medical assessment of a person should be of considerable value to the non-medical psychologist, particularly as a reminder of the importance of the physical aspects of a patient's behaviour.

The several chapters devoted to projective tests and their use include very necessary comments on the inadequacies and weaknesses of these methods of investigation. With reference to the Rorschach technique, the author has extended Zubin's hypothesis that the Rorschach method is actually a kind of standard interview, by describing it as a "stress interview", the findings from which should always be interpreted in the context of the case history.

The book is well documented with 252 references and has an adequate index. In general, it can be recommended both to non-medical psychologists and to psychiatrists and physicians who may be interested in the use of psychological techniques.

Babies Growing Up: Their Progress from Before Birth Right Through the Nursery Years. By Nurse McKay. London: Routledge and Kegan Paul, Limited. Sydney: Walter Standish and Sons. 7¼" × 4¾", pp. 239. Price: 17s. 6d.

"BABIES GROWING UP" is a mothercraft manual written by Nurse McKay, who has directed a mothercraft bureau through the English publications *Women's Pictorial* and *Mother and Home*. In a concise and comprehensive manner the book covers all aspects of child care and guidance from pre-natal days to the end of the pre-school years. However, specific directions given in matters of feeding and clothing are set in the framework of English climate and custom, the conditions being different from our more genial climate and our ample supplies of fresh food and sunshine. From a strictly practical point of view, Australian mothers are obviously likely to be better informed by qualified mothercraft advisers in their own areas. The warm sympathy between mother and child which is essential for mental health is well evident in the discussion of the problems of growth and development and would be helpful in establishing good attitudes on the part of parents, but a much fuller treatment would be needed to establish a proper understanding of underlying principles. The suggestions for further reading at the end of the chapters provide good starting points for those anxious to make a particular study of any special topic.

Rheumatoid Arthritis and Psoriasis Vulgaris: Internal and Cutaneous Manifestations of the Permanent Endoparasitism in the Homo Sapiens. Their Common Etiology, Pathogenesis, and Specific Vaccine Therapy. By Tibor Benedek, M.D.; 1955. Distributors: Chicago—Chicago Medical Book Company. 11" × 8½", pp. 320, with 57 illustrations.

THIS monograph is published by the author to explain and publicize the thesis set out in the subtitle. The thesis itself is unusual and is not at present accepted by internists, dermatologists and bacteriologists. In common with other exponents of the bizarre theory the author has felt what he calls "the bias of editorial offices and that most discouraging silence which buries new findings in the literature".

He claims to have grown an organism which he has called *B. endoparasiticus* Benedek 1927. Sources include the umbilical cord of newborn babies, cantharides blisters in normal humans and those suffering from *pityriasis rosea*, and joint fluid and synovial tissue and the blood of patients with rheumatoid arthritis. He states that in psoriasis there is severe and continuous bacteriæmia. He publishes illustrations showing what he describes as this organism in the tissues.

Reference is made to the forgotten work of Max Schüller in 1892, who described a dumb-bell shaped bacillus found in the joints of arthritic patients, and to the work of Bannantyne in 1896 in England and of Fayerweather in 1905 in the United States of America. It is stated that the organism described by Schüller is identical with the one discussed in the text.

Cultural methods and techniques of vaccine preparation and use are described, together with case histories of patients suffering from psoriasis and rheumatoid arthritis treated by vaccine prepared in the manner described.

Rheumatoid arthritis is a disease of infinite variety and is notoriously difficult to evaluate in therapy. Many of the records are lacking in follow-up notes. In themselves they are insufficient to allow the reader to convince himself of the effects of the treatment.

It is difficult to believe that the laboratories of the world have been unable to find evidence of "permanent endoparasitism" if it is as common as the author asserts. It is equally difficult to believe that no independent evidence of such organisms in synovial fluid and joint tissues has been possible if the author's thesis is correct. The thesis therefore remains unproven.

The Biliary Tract: With Special Reference to the Common Bile Duct. By Julian A. Sterling, A.B., M.D., M.Med.Sc., Sc.D., F.A.C.S.; 1955. Baltimore: The Williams and Wilkins Company. Sydney: Angus and Robertson, Limited. 9" × 6", pp. 433, with many illustrations. Price: £5 10s.

THIS is a monograph on diseases of the biliary tract and pancreas which the author states in his preface has been "prepared to correlate the clinical features, laboratory investigations, operative procedures and biliary tract functions". He has prepared chapters on anatomy, physiology and pathology in considerable detail. Then follows a full account of radiology and laboratory procedure which are the best of the sections in the book. The clinical manifestations are then described and finally the medical and detailed surgical management.

The author has marshalled much factual information in the early chapters, but the very exhaustiveness makes at times difficult reading. The section on the functions of the liver could well have been omitted in a book of this kind. Similarly, the chapter on lesions of the pancreas could have been left out.

Chapter 6 is headed the "Clinical Manifestations of Common Bile Duct Disease", but includes a very full discussion on intrahepatic causes of obstructive jaundice, even mentioning chlorpromazine as a cause, and there are coloured illustrations reprinted from Pfizer *Spectrum* showing the pathology of the liver in hæmolytic, hepatic and extrahepatic jaundice. Under a subheading, "Relations of Other Diseases to Disease of the Common Bile Duct", is included hepatorenal disease with long discussions on catarrhal jaundice, liver abscess, subdiaphragmatic abscess, hepatic coma *et cetera*. This chapter is bewildering in its complexity and detail and apparent lack of definitive purpose.

The discussion on radiology of the biliary tract is excellent and the photographs and diagrams are clear and informative. The surgical chapters are also well written.

The book is hard to read. At times the grammar and composition leave much to be desired. Even in the preface there is a "sentence" without a verb. The whole monograph could be rewritten in clear and simple English and much detail could be omitted.

One would recommend this book for library purposes only. It is not suitable for students or general practitioners.

Trace Elements in Human and Animal Nutrition. By E. J. Underwood; 1956. New York: Academic Press, Incorporated. 9" × 6", pp. 439, with illustrations. Price: $9.50.

IN the early part of this century the requirements by man and domestic animals of the elements carbon, hydrogen, oxygen, nitrogen, sulphur, phosphorus, calcium, potassium, sodium, magnesium and chlorine were fairly well known, but it soon became obvious that other elements were required in amounts very much smaller than those mentioned. Of the elements which have been found in living tissues only iron, copper, manganese, molybdenum, zinc, iodine and cobalt have been conclusively shown to be nutritionally essential for higher animals. Since these are required in very small amounts they have been called trace elements, not a very good name, but no better has been suggested. While excellent reviews have been published on the requirements for several of these elements, there has been produced no comprehensive treatise on the whole field. This lack has now been met in a most satisfactory manner by Professor E. J. Underwood, of the University of Western Australia. The author has considered not only those trace elements necessary for the well-being of man and animals, but also fluorine and selenium which may occur in food and water supplies and cause deleterious effects in man and animals. There are also short statements on the other elements found in higher animals in traces for which no use has yet been found.

It will be noted that iron and iodine are classed with the trace elements.

Each element is considered separately in relation to needs of man and animals, the effects of deficiency, the chemical compounds of the element in the body and toxicity of excess. The treatment in each case is very thorough and right up to date. The sections on iron, iodine, copper and cobalt are particularly well done. Underwood and other Australian workers have been very much to the fore in researches into the trace elements. There is an adequate bibliography. This is a very well written book and of interest and value to all concerned with human and animal nutrition.

X-Rays: Their Origin, Dosage, and Practical Application. By W. E. Schall, B.Sc., F.Inst.P., Hon. M.S.R.; Seventh Edition; 1956. Bristol: John Wright and Sons, Limited. 9½" x 7½", pp. 338, with many illustrations. Price: 42s.

The seventh edition of this volume has just been published. It has been in print in successive editions since 1923, whence it appeared as a successor to a volume on electromedical instruments first published in 1892. This record constitutes a proud achievement. The book is intended for the radiographer, and the present edition is in sections dealing successively with radiological physics, and diagnostic, therapeutic and industrial radiology.

In two excellent chapters the author considers basic radiological physics, and he makes the discussion pass logically into an exposition of the essential components and instrumentation of diagnostic X-ray apparatus. A useful chapter on the production of high voltage for radiological purposes follows and leads into discussions of design of X-ray equipment. The author goes to considerable pains to describe the construction and mode of action of each of the various component parts, and the best portions of the book are included in these sections. A description of film characteristics, processing and technique is instructive. A discussion of various types of standard and accessory X-ray equipment follows, including grids and diaphragms, tomographs and kymographs, and developments in design of miniature radiographic apparatus are stated.

Up to this stage the book is excellent and must prove of tremendous assistance to the radiographic technician. This portion will well repay study by candidates doing the physics sections of the medical radiological diplomas. But a section on X-ray therapy follows which does not maintain the excellent standard of the earlier portion. The discussion on radiobiology is poorly done. The discussion of fractionated dosage hinges round the ideas of the old German school, when it was thought that a cumulative radiation effect not greater than that sufficient to cause an erythematous reaction should be produced. Since the work of the French school, every radiotherapist uses fractionated dosage in amounts well in excess of these limits, knowing that erythematous reactions can be produced safely if produced slowly. All sections of this chapter need to be greatly amplified if the wants of the therapy technician are being considered.

An interesting chapter on industrial radiography follows. The author indicates something of the wide fields of work being covered and shows how major and accessory apparatus is undergoing changes of design to meet the particular needs of industry.

The final chapter on protection could stress more the factors of safety in design of radiographic rooms, and should point out the electrical and radiational hazards that may befall an unwary technician.

The author has done an excellent job in producing the seventh edition of this popular book. The photographic illustrations are profuse and the numerous diagrams are most helpful. The book should be in the hands of every diagnostic technician.

Complications of Regional Anesthesia: Etiology—Signs and Symptoms—Treatment. By Daniel C. Moore, M.D.; 1955. Oxford: Blackwell Scientific Publications. 10½" x 7½", pp. 307, with illustrations. Price: 75s.

In his comprehensive work, "Complications of Regional Anesthesia", Daniel C. Moore, of Seattle, gives a highly salutary reminder of the fact that regional analgesia, in its various forms and contrary to widespread belief, carries substantial risks of morbidity and even mortality. The writer emphasizes the fact, however, that in comparison with those of general anæsthesia, which are perhaps more frequent and certainly more lethal, such complications are apt to receive greater attention and condemnation, since the victims generally survive with their disabilities to haunt the physician concerned.

The book represents a most exhaustive and systematic survey of the subject. It is divided into three parts dealing respectively with local and peripheral analgesia, spinal and epidural analgesia, and sundry coincidental hazards and sequelæ. There are 31 chapters, each dealing with a specific complication which is assessed, apart from a few variations, under the headings of ætiology, signs and symptoms, prophylaxis, treatment and comment. This method invites a somewhat discursive and repetitious style, which, however, is amply compensated for by the general clarity and brevity of the presentation. In addition, the English composition is of remarkably high standard.

Nevertheless, there are a few crudities and errors. We are advised to "do a careful history and physical" and are warned against "hemoglobic hypoxia". "Severe enough that" and "occurs due to" are solecisms, while "Palmer writing in Pitkin" refers to the latter's book and not to some island dialect. Outright errors of fact are rare. On page 18 unreduced (reduced) hemoglobin appears; on page 62 forceful expiration (inspiration) carries doubts; on page 149 the head-down Fowler position is contradictory; on page 182 jugular compression will aggravate (relieve) and carotid compression relieve (aggravate) hypotensive headache; while on pages 162-163 the essential immediate treatment of oxygen-want, that is, vigorous and efficient oxygen therapy, is most inadequately stressed.

Part III of the book is rather sketchy, especially the chapter dealing with unsatisfactory analgesia, the overall incidence of which, even in skilled hands, the author places between 5% and 7%. Perhaps he is wise, however, to mention only the dangers of intraarterially administered thiopentone and perivenous extravasation of fluids containing vasoconstrictor drugs. Part III is followed by an excellent appendix, which lists the various complications recorded in the literature for all types of regional nerve block, italics being used for the relatively few the writer has experienced personally. An extensive and accurate index completes the work, which also comprises over 1000 references, 51 beautiful illustrations and 25 tables. Despite the lack of stress on the need for sound anatomical knowledge and good training, its perusal by all concerned in regional and general anæsthesia is strongly recommended.

Books Received.

[The mention of a book in this column does not imply that no review will appear in a subsequent issue.]

"Currents in Biochemical Research, 1956", edited by David E. Green; 1956. New York: Interscience Publishers, Incorporated. London: Interscience Publishers, Limited. 9" x 6", pp. 713, with illustrations. Price: $10.00.

Twenty-seven essays by 27 contributors.

"Advances in Internal Medicine", edited by William Dock, M.D., and I. Snapper, M.D.; Volume VIII; 1956. Chicago: The Year Book Publishers, Incorporated. 9" x 6", pp. 366, with illustrations. Price: $9.00.

Deals with eight subjects, each of which is discussed by different authors or groups of authors.

"The Practice of Psychosomatic Medicine: As Illustrated in Allergy", by Hyman Miller, M.D., and Dorothy W. Baruch, Ph.D.; 1956. New York, London, Toronto: McGraw-Hill Book Company, Incorporated. 9" x 6", pp. 207. Price: $5.00.

The "primary focus" of the book is on treatment.

"The Year Book of Pathology and Clinical Pathology (1955-1956 Year Book Series)", edited by William B. Wartman, B.S., M.D.; 1956. Chicago: The Year Book Publishers, Inc. 7½" x 5", pp. 480, with illustrations. Price: $6.50.

One of the "Practical Medicine Series" of Year Books.

"Treatment of Heart Disease: A Clinical Physiologic Approach", by Harry Gross, M.D., F.A.C.P., and Abraham Jezer, M.D.; 1956. Philadelphia and London: W. B. Saunders Company. Melbourne: W. Ramsay (Surgical), Limited. 10" x 6½", pp. 559, with illustrations. Price: £6 10s.

Intended for the general practitioner who, imbued with the physiological point of view, "may more readily understand the symptoms and clinical course of his patients".

The Medical Journal of Australia

SATURDAY, OCTOBER 6, 1956.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given: surname of author, initials of author, year, full title of article, name of journal, volume, number of first page of the article. The abbreviations used for the titles of journals are those adopted by the Quarterly Cumulative Index Medicus. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

THE GOLD MEDAL OF THE BRITISH MEDICAL ASSOCIATION IN AUSTRALIA: AN AWARD TO DR. JOHN HUNTER.

In the year 1922 the Federal Committee of the British Medical Association in Australia instituted a Gold Medal with which it could show its appreciation of the services rendered to the profession by any member of the Association. The actual words used were that the medal was to be awarded "to a member of the British Medical Association who has rendered signal service to the profession". The power of the Federal Committee (and of the Federal Council which succeeded it) to make this award has been zealously guarded and wisely used. The Association does not make its highest award on uncertain grounds, and the annals of history show the type of man and the type of service which have been adjudged worthy. In this select gallery are men whose lives were lived in the full gaze of their medical brethren, men of vision and audacity, who, like good mariners in dirty weather, were always on the bridge or in the chart-house, and were able to plan a course leading to calmer waters. They did not grow weary in well-doing. They did not seek a "bubble" reputation, but gained both the esteem and affection of their fellows. Honours given to men have many origins—the monarch, acting on ministerial advice, may bestow orders of varying seniority on the chosen; universities may confer honorary degrees in recognition of academic or public attainment; and the plaudits of the multitude may be heard if the popular imagination has been fired. All these things and more may fall to the lot of a member of the medical profession, and in them he may take a "legitimate pride", but of more value to him than any, or indeed all, of these honours are the esteem and the goodwill of the members of his own profession, among whom he lives and moves and has his being.

The first two awards were made at the first session of the Australasian Medical Congress (British Medical Association) held at Melbourne in 1923. The recipients were William Thornborough Hayward and Robert Henry Todd. An account of the presentation will be found in THE MEDICAL JOURNAL OF AUSTRALIA of December 22, 1923, at page 663. The late George Adlington Syme, who presented the medals to the recipients, described Hayward's long association with the South Australian Branch and the active part which he had played in the institution of the Federal Committee. He declared that it was largely owing to Hayward's initiative and foresight that the Federal Committee came into being. He was its first chairman. It was Hayward also who opened negotiations with the Council of the Parent Body in regard to the granting of greater autonomy to the overseas Branches. Syme also spoke of Robert Henry Todd's devotion to the Association, and said that he had been the moving spirit in its affairs during a long series of years. It was Todd who was sent by the Federal Committee to England to discuss the granting of autonomy to the overseas Branches, and the fact that this was achieved was due to him. It was he who drew up the articles of association and by-laws of the Federal Committee. One of the main objects in the establishment of the Federal Commitee was the publication of one medical journal for the whole of Australia. Hayward and Todd both took an active part in the formation of the Australasian Medical Publishing Company, Limited, and Todd drew up its memorandum of association and by-laws. He is known as the founder of THE MEDICAL JOURNAL OF AUSTRALIA. In addition to his many years of association with the New South Wales Branch, he was also Honorary Secretary of the Federal Committee and of the Australasian Medical Publishing Company, Limited. Among the other recipients of the Gold Medal was William Henry Crago, who had taken a distinguished part in the affairs of the New South Wales Branch for many years, and had acted for forty-five years as its Honorary Treasurer. He also acted for a while as chairman of the Australasian Medical Publishing Company, Limited. The next award was made in 1937 to Sir Henry Simpson Newland. We recall with gratitude his many years of presidency of the Federal Council, and especially the way in which he looked after its affairs during the difficult times of discussion with the Federal Government over a National Health Service. He is still active in the affairs of the Association, and is chairman of the Australasian Medical Publishing Company, Limited. It is noteworthy that he has also received the Gold Medal of the Parent Body, a rare and honourable distinction. In 1943 the medal was awarded to Crawford Henry Mollison, whose portrait hangs in the Council Chamber of the Victorian Branch. He was Honorary Treasurer of the Victorian Branch for no less than fifty-six years. In 1944 the medal was awarded to Arthur Graham Butler, the author of the "Official History of the Australian Army Medical Services" during the first World War. Butler's work in the face of many difficulties and lack of encouragement from official quarters places him

forever in the debt of the medical profession of Australia and indeed of all its people.

The latest recipient of the Gold Medal is Dr. John George Hunter, General Secretary of the Federal Council. The medal was presented to him by the President of the Federal Council, Dr. H. C. Colville, at a dinner given by the Council of the Victorian Branch to members of the Federal Council and officials from some of the other Branches on August 29, 1956. In making the presentation, Dr. Colville read a long list of Dr. Hunter's achievements since his graduation in science and medicine. He began by referring to Hunter's work as chief biologist with the Australasian Antarctic Expedition from 1911 to 1914. He referred to his war service in the first World War, and in the second World War, to his long years of devotion to the interests of the New South Wales Branch, and especially to his work as General Secretary of the Federal Council from 1933 to the present time. This by no means exhausts the list of Hunter's achievements, but it is to his work as General Secretary of the Federal Council that special reference must be made. He, more than any single person, was responsible for the success of the fight of the medical profession against the Chifley Government in its attempt to place a galling yoke of subservience on the necks of the members of the medical profession. All members of the profession in every part of the Commonwealth will recall the energy with which he tackled the subjects at issue, and the clarity of the arguments which he used. The spontaneity and the warmth of the reception of Dr. Hunter when he rose to respond to Dr. Colville's tribute and the actual presentation of the medal left no doubt of the cordiality of those present and of the affection in which they held him. As long as the British Medical Association in Australia is served with the devotion and singleness of purpose of men like John Hunter, so long will it fulfil its destiny, in the promotion of the medical sciences in the service of humanity.

Current Comment.

ERYTHROKINETICS.

THE term erythrokinetics has been devised for the study of red cell production and destruction within the "erythron". Previous studies of the activity of red cell production have been limited to determinations of erythrocyte life span rather than the actual red cell production and effective delivery to the blood-stream. R. L. Huff *et alii*[1] investigated the turnover of plasma iron by means of a radioactive isotope of that element introduced into the blood. They found that the plasma iron turnover was one and a half times the amount required for the renewal of red cell iron at the rate of 0·85% of cells per day. The turnover was increased in abnormal conditions of the blood such as polycythæmia, leuchæmia, pernicious anæmia and hæmolytic anæmia. In some patients with a refractory anæmia the plasma iron turnover was reduced, and Huff *et alii* suggested that the rate of turnover of plasma iron was a much more sensitive indicator of abnormalities of iron metabolism than a plasma iron determination alone.

R. Berlin[2] studied the red cell survival in normal and in leuchæmic subjects by means of the differential agglutination method. From this he concluded that the normal red cell survival time in man was an average of one hundred and twenty-one days. In young women menstruation was preceded by hyperhæmolysis, or a dilution of the blood, and a peak in the production of reticulocytes. Red cell survival appeared to be slightly shorter in men than in women, but the determination was not considered to be entirely satisfactory. No conclusion was reached by Berlin on the cause of the anæmia of leuchæmia. However, study of the survival of transfused cells in leuchæmic subjects revealed that survival time was considerably reduced, apparently in proportion to the degree of splenic enlargement—at least in the myeloid leuchæmias and less certainly in lymphatic types.

M. Seip[1] made a particular study of the reticulocyte cells. He was able to show that red cells always leave the bone marrow as reticulocytes, usually in the later stages of maturation. Hypoxia resulted in the liberation of less mature types. He concluded that the reticulocytes constitute an essential part of the actual red bone marrow, probably between 25% and 30% under normal conditions. From calculations Seip found that the average red cell life span was one hundred and ten days under stable hæmatological conditions; the averages were one hundred and twenty-six days for men and ninety-nine days for women. Blood production was found to vary between 39,000 and 70,000 erythrocytes per cubic millilitre per day. Production appeared to depend upon oxygen concentration, though control was probably exercised from the region of the *tuber cinereum*. The adjustment was very fine, though production of erythrocytes probably remained at constant levels hour by hour for weeks at a time.

Quantitative measurements of red cell production and destruction in normal subjects and in patients with anæmia have been made by E. R. Giblett, D. H. Coleman, G. Pirzio-Biroli, D. Donohue, A. G. Motulsky and C. A. Finch.[2] Erythroid marrow activity and red cell turnover in the circulating blood were estimated by measurements of marrow erythroid-myeloid ratio, the reticulocyte count, and the incorporation of radioactive iron into circulating hæmoglobin. The amount of urobilinogen pigment excreted was taken as a measurement of the rate of red cell destruction. Data were derived from the studies of 19 healthy young men, and of 25 patients with anæmia, of whom all but four were in hæmatological equilibrium. In order to relate results to individuals of different size, blood volumes and hæmatocrit concentrations, red cell production was referred to the normal circulating red cell mass of the individual, while red cell destruction was related to the amount of cells destroyed per unit of existing red cell mass. In the normal individuals there were found to be, on an average, 463 nucleated red blood cells per 1000 myelocytic cells in the bone marrow. This figure is rather higher than that of previous investigators, possibly because of different techniques. In patients with Cooley's anæmia, pernicious anæmia and marrow failure there appeared to be an extensive red cell production and destruction within the marrow. In most of the uncomplicated hæmolytic anæmias, effective erythropoiesis approximated to total erythropoiesis. The average normal reticulocyte count was 1·28 per 100 circulating red blood cells, though there was considerable individual variation. Giblett *et alii* explain that the reticulocyte count, as usually expressed, is a quantitative expression of red cell destruction. For an estimation of marrow activity the number of reticulocytes per millilitre of blood must be known. Disproportionately high values were found in some patients with hæmolytic anæmia, and in others with infiltration of the marrow by fibrosis and leuchæmia. This apparent excessive production is probably really an effect of the premature release of nucleated cells. The opposite effect occurs in pernicious anæmia where the late release of new red cells makes it appear that blood production is excessively depressed.

The normal plasma iron turnover was 37·5 milligrammes per day, though not all this finally enters new cells as active hæmoglobin. In hæmolytic anæmia there was an increase in the red cell turnover as indicated by the

[1] *J. Clin. Invest.*, August, 1950.
[2] *Acta med. scandinav.*, Supplement 252, 1951.

[1] *Acta med. scandinav.*, Supplement 282, 1953.
[2] *Blood*, April, 1956.

metabolism of the plasma iron. However, in cases of marrow dysfunction, the plasma iron turnover did not appear to reflect red cell production. Plasma iron turnover represents total hæmoglobin production and not effective erythropoiesis.

The red cell utilization of radioiron presented many practical difficulties of investigation, and little additional information was obtained by Giblett *et alii*. The chief value of red cell radioiron studies appears to be in the recognition of decreased marrow activity. The average excretion of urobilinogen was 157 milligrammes per day and probably represents about two-thirds of total excreted pigment. While study of this excretion indicates the rate of hæmoglobin destruction, it does not necessarily indicate the rate of active blood cell destruction, particularly in some hæmolytic anæmias, pernicious anæmia and Cooley's anæmia. Thus from these and other discrepancies Giblett *et alii* suggest that little is gained by attempts at accurate urobilinogen estimations.

From these studies it is apparent that the bone marrow is capable of great compensation by increased activity. In hæmolytic anæmia, and after rapid blood loss, erythropoiesis reaches two to three times the normal rate. With long-standing hæmolytic anæmia the total erythropoiesis may be eight to ten times normal, though some of this is not effective. Studies indicate that the boundaries between hæmolytic and so-called aplastic anæmia are less clear. Increasing severity of qualitative defects in the erythrocyte results in progressive shortening of red cell life span until cell destruction occurs principally or entirely in the marrow. While hereditary and acquired anæmias are the result of excessive hæmolysis, despite marrow compensation, other anæmias associated with marrow infiltration are the result of reduced marrow responsiveness. In Cooley's anæmia the failure is one of the delivery of viable erythroeytes, and in pernicious anæmia and certain refractory anæmias there appear to be a variable reduction in total marrow response and a decrease in effective, as compared with total, erythropoiesis.

HEREDITARY FACTORS IN ARTHRITIS.

Various attempts have been made in the past to show that the collagen diseases are characterized by their tendency to attack several members of the same family. However, as a group the collagen diseases are scattered thickly in the general population, and the inevitable confusion is cleared only when the individual collagen diseases are studied separately. Even so, convincing proof that there is an hereditary factor in any particular disease is so far lacking. Certainly, it appears that there is a familial tendency for conditions such as rheumatic fever, ankylosing spondylitis and premature degenerative osteoarthritic changes. As J. H. Kellgren and J. S. Lawrence[1] have shown, the very attempts to assess the incidence of rheumatism in the general population are fraught with great difficulties, so that attempts to formulate family histories of rheumatic disease would be even more difficult. However, R. L. Cecil[2] states that he has been impressed with the tendency of rheumatoid arthritis to develop in the offspring of arthritic patients. One of the most enthusiastic workers in the field of heredity in arthritis is R. M. Stecher, who has studied and written on the heredity of various collagen diseases. Stecher, together with A. H. Herch and W. M. Solomon,[3] found that amongst the relatives of patients with gout, there was a clear-cut tendeney for raised levels of the serum uric acid. The hereditary factor appeared to be an autosomal dominant with a much reduced penetrance in the female. More recently, Stecher[4] addressed the Third International Congress of Internal Medicine, at Stockholm, on the subject of heredity in arthritis. In his study of the genetics of rheumatoid arthritis, 224 rheumatic families comprising 1667 individuals were compared with 488 normal families comprising 2759 individuals. Of the relatives of rheumatic patients, 3% were affected with the disease as compared with 0·6% of the control series. Further study reveals that about 1·16% of the general population has the proper genetic constitution for development of rheumatoid arthritis; of these about half are actually affected.

A survey of 8000 individuals revealed that over the age of seventy years, 30% of women and 3% of men develop idiopathic Heberden's nodes. Analysis revealed that the disease is inherited as a single autosomal gene, dominant in women and recessive in men. The onset of the Heberden's nodes in women appeared to be related in some way to the onset of the menopause.

Study of the hereditary nature of osteoarthritis of the hip is complicated by the several primary diseases which end in the osteoarthritic changes. Stecher suggests that possibly these primary diseases are hereditary, possibly with associated genes, though there is no conclusive study to support this so far. Osteoarthritis of the spine appears to be a different disease from that of osteoarthritis of the hips, small joints and Heberden's nodes. There is no evidence that osteoarthritis of the spine is influenced by heredity. Use of the knowledge of the genetic nature of gout and of ankylosing spondylitis may lead to the earlier detection and treatment of the relatives of patients with these diseases. The genetical nature of rheumatic fever is still in doubt, and it would be difficult to do more than ensure that the living conditions of affected families were adequate. Knowledge of the hereditary nature of rheumatoid arthritis would appear to have no practicable application. The importance of osteoarthritis of the hip is in the recognition and early treatment of the primary disease in early life.

[1] *Ann. Rheum. Dis.*, March, 1956.
[2] "Textbook of Medicine." Cecil and Loeb, Ninth Edition, Saunders, Philadelphia and London, 1955.
[3] *Ann. Inter. Med.*, October, 1949.
[4] *Acta med. scandinav.*, Supplement 312, 1956.

SULPHONAMIDES AND DIABETES.

In our issue of June 30, 1956, there appeared an important contribution by Dr. Ewan Downie and others on the role of sulphonylurea derivatives in the treatment of *diabetes mellitus*. This was commented on editorially in the same issue. The compound under discussion was BZ55 or "Carbutamide" (Lilly). Downie and his colleagues drew attention to the variation in the response of patients to the exhibition of the drug and reported, as a result of their own observations, that some patients after cessation of BZ55 treatment had remained in proper control for periods of many weeks, while others had shown a return of glycosuria and hyperglycæmia within ten to fourteen days. They stated that there was no simple or satisfactory test which would enable one to predict which patients were liable to respond to BZ55 therapy. In our comment we drew attention to work that had been done in other parts of the world and insisted that until more was learned about it and its mode of action, it should be used only under controlled conditions. From Canada came certain reports which should be noted.

Under the general direction of Professor C. H. Best,[1] of the University of Toronto, groups of physicians and physiologists have studied the effects of BZ55 in various types of diabetes in man and in experimental diabetes in dogs, and have also made some observations on isolated tissues. This work has been done in the University of Toronto and in various hospitals in Toronto, and is a very fine piece of team investigational work. All the papers to be mentioned appear in the same number of the *Canadian Medical Association Journal*. Accepting as an established fact that BZ55 is effective in many cases of diabetes, the physicians have investigated the effects of BZ55 on small numbers of different types of diabetes, some of them resistant to insulin.

That some sulphonamides produce hypoglycæmia has been known since 1942. BZ55 was found more or less accidentally in 1953, in the clinic of Professor Franke, of Berlin, to produce severe hypoglycæmia in a normal person,

[1] *Canad. M. A. J.*, June 15, 1956.

promptly relieved by sugar intake. After a general introduction to the whole subject by C. H. Best the action of BZ55 on diabetic dogs is discussed by A. Sirek, O. V. Sirek and Y. Hanus. The drug can be effective in some dogs in the absence of the pancreas and the pituitary. It appears that it may potentiate the action of insulin, since one unit every eight to ten days was sufficient to control a depancreatized dog which previously required 24 units daily. The dog was receiving 1·0 gramme per day of BZ55.

Essentially the same findings were made by J. Campbell and V. Lazdins, but they noted that a depancreatized dog was weak and upset after prolonged treatment (thirty-seven days) with BZ55, even though sugar excretion was well controlled.

D. W. Clarke, M. Davidson, E. Schönbaum and H. Senman, working with isolated liver, found that BZ55 inhibited some metabolic process in the liver associated with sugar.

R. D. Hawkins and M. A. Ashworth found that the administration of BZ55 to normal rats led to a significant depression of the glucose-6-phosphatase activity of the liver. This is the enzyme responsible for freeing glucose in the liver.

G. A. Wrenshall and C. H. Best compared the extractable insulin of the pancreas of diabetics and the effectiveness of orally administered sulphonylureas in the treatment of diabetes in man. They found basic similarities between the presence or absence of appreciable amounts of insulin at autopsy and the effectiveness or ineffectiveness of either of the two sulphonamides BZ55 and U2043. In other words it is very probable that these drugs administered by themselves are effective in returning blood and urine sugar levels towards normal only in those diabetic subjects who possess an appreciable amount of endogenous insulin. In line with this are the results obtained on a patient who had had a complete pancreatectomy and was kept relatively normal by insulin injections. M. A. Ogryzlo and J. Harrison found that this patient reacted very little if at all to the administration of BZ55. In three cases of diabetes in which the patients refused insulin but kept in fairly good health, B. S. Leibel found the response to BZ55 to be good, but two others did not react. No material benefit was obtained by J. G. Watt in treating two patients with labile diabetes with BZ55. In four patients over the age of sixty-five years, B. Charles found in one that BZ55 reduced the insulin requirement, but not sufficiently to make its use worth while; in another satisfactory control was obtained with BZ55 alone; and in a third, a man of eighty years with diabetes of twelve years' duration, BZ55 had no effect on the blood sugar. Other clinicians showed similar variations in activity of BZ55 in adults. In several cases patients developed fever while taking the drug, others developed a maculo-papular rash which disappeared when the drug was stopped.

A. L. Chute and H. W. Bain confirm European experience that BZ55 has no value in the treatment of juvenile diabetes. This is no doubt due to the fact that the pancreas in a developed case of juvenile diabetes contains no insulin. One may confirm the conclusion already reached that BZ55 is in no way a complete substitute for insulin, but that it may be of use in the treatment of obese adults with fairly stable diabetes of short duration. This does not mean that it should now be used in any but strictly controlled circumstances.

PIGMENTATION OF THE SKIN.

PIGMENTATION of the skin and mucous membranes by melanin is one of the most widely variable normal characteristics of man. The medical significance of abnormal pigmentation is considerable; the social significance of normal pigmentation is astonishing. Deep pigmentation of the skin is a cobweb sign of social and racial inadequacy. Perhaps one of the most extraordinary social facets of skin pigmentation is the length to which non-coloured peoples try to intensify that very concentration of melanin which they despise in their fellows. Suntan has acquired a cosmetic significance of beauty in both sexes, and the sight of masses lying torpid and motionless yielding pale northern bodies to the doubtful mercy of a tropical sun is at the same time amusing, pitiful and inexplicable.

A. B. Lerner, K. Shizume and I. B. Lerner[1] have shown that the variations in melanin control depend upon the melanocyte-stimulating hormone of the pituitary gland. The levels of this hormone do not vary between the different individual degrees of skin pigmentation, but only in physiological variations within the individual, such as during pregnancy and during diseases such as *retinitis pigmentosa, alopecia areata totalis*, and Addison's disease. Control of the MSH is exerted by the hormones of the adrenal cortex acting directly on the pituitary, and by the action of the hormones of the adrenal medulla on the activities of MSH itself. Other workers have shown that generalized or localized disturbances of pigmentation of the skin are associated with several hereditary diseases, quite apart from the better known albinism, and the association of pigmentation with familial polyposis of the colon. Other diseases in which pigmentation is associated with gastro-intestinal abnormalities include the Peutz-Jaghers syndrome in which, as A. Bruwer *et alii*[2] describe, there are multiple intestinal polypi. Two cases of this type have recently been reported by F. A. K. van Wyk and A. M. Glen.[3] Another unusual condition which has been described is that of *incontinentia pigmenti* in which there are two different types associated with ocular disturbances, malformation of the teeth and diminished function of the sweat glands.

There are numerous skin diseases associated with local abnormalities of skin pigmentation. On the whole, such conditions are of cosmetic importance only. Knowledge concerning the exceedingly malignant changes which occasionally take place in the non-hairy pigmented mole is slight, and treatment is almost invariably of little avail. Malignant changes have been reported in a hairy pigmented mole. It has even been suggested that vitiligo is often associated with prurigo. Histological examination of pigmented skin has revealed that the amount of melanin present corresponds to the depth of the skin colour. The pigmentation is normally present, especially in the *stratum germinativum* and the *stratum spinosum*.

The clinical significance of abnormal pigmentation of the skin has recently been discussed by A. Lyall and A. Lyell.[4] They suggest that the storage of vitamin *D* by the devotees of sunbathing is difficult to prove experimentally. A suntan is most commonly acquired by those with naturally dark skins or with Addison's disease. The pigmentation resulting from the dysfunction of suprarenal medullary adrenaline is found in the deeper layers of the skin, especially in the basal cells of the epidermis. Pigmentation caused by the impregnation of silver or of arsenic is now uncommon. In patients with hæmachromatosis or bronzed diabetes the pigment is of a grey-brown or slightly cyanotic colour. There is usually a family history of such discoloration, which involves particularly the pudenda, and there is usually an associated disturbance of carbohydrate metabolism. The disease is accompanied by the abnormal deposition of iron in the parenchymal cells of the liver and pancreas, and in the reticulo-endothelial system and the deep layers of the skin.

According to J. C. Houston and R. H. S. Thompson,[5] assistance in the diagnosis of hæmachromatosis is given by estimations of the serum iron level and the serum iron-binding capacity. Each of their patients with this disease had high fasting serum-iron levels, complete or almost complete saturation of the iron-binding capacity, and flat or almost flat iron absorption curves.

Lyall and Lyell point out that generalized petechial pigmentation may precede death from disseminated malignant melanoma. Apart from melanin, pigmentation of the skin may occur following the deposition in the skin of fat-

[1] *J. Clin. Endocrinol.*, December, 1954.
[2] *Proc. Staff Meet. Mayo Clin.*, March 24, 1954.
[3] *South African M. J.*, June 30, 1956.
[4] *M. Press*, June 6, 1956.
[5] *Quart. J. Med.*, April, 1952.

soluble pigments, lypochromes and chlorophylls or mixtures of these with carotin. This type of pigmentation was seen in patients with diabetic lipæmia, a condition which is now rare owing to the more near normality of diabetic dietetics. Multiple pigmented exanthomata and generalized pigmentation may occur in severe cases of thyrotoxicosis and in the myxœdematous patient. Yellow staining of the skin is occasionally seen after the ingestion of large numbers of oranges or in the treatment of patients by mepacrine. Deficiency diseases, particularly beriberi, result in pigmentation of the skin persisting for many years.

The action of the sun in producing localized skin pigmentation is intensified by exposure to tar and pitch. Cosmetic preparations derived from these two substances act in a similar manner, but do not appear to possess the same carcinogenic activity. Essential oils, used in several cosmetic preparations, also have photosensitizing properties. Freckles represent overall irregularity of skin pigmentation, usually in the fair-haired. Pigmented moles are a developmental abnormality with localized absolute increase of the pigment. They sometimes increase in size and darken in colour during pregnancy and simulate malignant change. The colour of seborrhœic warts is attributable to chemical changes in the keratin cover, to the accumulation of dirt, and to melanin. Other conditions which cause alterations of skin pigment include the common skin diseases, burns, varicose ulcers, leprosy, secondary syphilis and chronic infestation by lice. Finally, Lyall and Lyell remind us that localized patches of pigmentation may be produced by phenolphthalein and the barbiturates.

The mechanism of melanin in deposition on the surface of fibrils of the melanoblast cell is a complex one, and the associated activity of tyronase is still not fully understood. Explanation of the action of new drugs reported to increase the deposition of melanin both in depigmented and in normal skin is awaited with interest. Especially considering the complexity of hormonal dependence in which upset is so often characterized by hyperpigmentation, it is to be greatly deplored that these drugs have received widespread publicity. The least that can be hoped for is that they will be placed out of reach of the foolish and frivolous who desire to sport the pretended touch of the sun upon their skins.

CYTOLOGY AND DETECTION OF CARCINOMA OF THE CERVIX UTERI.

THERE is, at the present time, considerable variation in the use which is made of the technique of the examination of vaginal smears for the early detection of carcinoma of the *cervix uteri*. The popularity of this method of investigation is influenced by the need for prolonged and continuous experience by the pathologist responsible before the accurate detection of malignant cells can be relied upon. When G. N. Papanicolaou[1] introduced this method of diagnosis he suggested that several months were needed even by those who were already familiar with pathological methods. His view is that the first smear should be taken by vaginal aspiration before the insertion of a speculum has introduced an element of potential trauma into the investigation. A second smear taken by aspiration of the cervix is particularly useful in the diagnosis of early carcinoma, as it reveals the cytology of the endocervical fluid and of the endometrium. Other smears are taken by swabbing of the cervix and by aspiration of the endometrium. As Papanicolaou points out, the laboratory does not usually receive all four of these specimens, and the cytological method of detection of cervical carcinoma depends mostly on the vaginal aspiration, and to a lesser extent on cervical aspiration or swab smears. Even so, there were few false positive or false negative reports in patients with suspected carcinoma of the cervix or endometrium.

However, the accuracy of the cytological examination in the detection of cancer varies considerably from series to series. The squamous carcinoma of the cervix has been variously claimed to be diagnosed accurately in from 70% to 100% of the cases by different authors. Claims for accuracy in the detection of intraepithelial carcinoma of the cervix have not been quite so ambitious. Particular difficulty in the use of this method has been encountered in the diagnosis of carcinoma of the cervix during pregnancy. R. E. L. Nesbitt and L. M. Hellman[1] found that basal-cell activity, as faithfully detected by smear examinations, occurred fairly frequently in normal pregnancies without any malignant significance. In the normal case, these changes regressed within seven to twelve weeks *post partum*. The persistence of abnormal cells in smear examination after this time is a useful sign of true malignant disease. As J. P. Greenhill[2] suggests, the diagnosis of cervical carcinoma during pregnancy, when in doubt, is made on the results of the examination of a cervical biopsy.

For the diagnosis of cervical carcinoma in the non-pregnant patient the cytological technique, apart from the technical difficulties, is still not generally acceptable. J. B. Blaikley[3] suggests that the cytological diagnosis is still in the early stages, so that the value of the technique cannot yet be assessed. However, E. L. Hecht[4] considers that the smear obtained after endometrial aspiration is particularly valuable in the detection of malignant changes which are not always detected by initial curettage or by biopsy of the endometrium. L. L. Mackenzie[5] suggests that discrimination between malignant and normal cells obtained from the cervix is not always easy and there are discrepancies between the results obtained from smears and from biopsies. No single cell was found which was diagnostic of early carcinoma of the cervix. Moreover, the cost of the smear technique, used as recommended by Papanicolaou as a screening method, is considerable. The results obtained by E. Held, W. E. Schreiner and I. Oehler[6] reveal that many false negatives can be obtained in the presence of carcinoma of the female genital tract, and the cost in time for the physician, technician and pathologist is far greater than that of other methods of diagnosis.

R. E. I. Nesbitt and C. B. Brack[7] report on the role of cytology in detection of carcinoma of the cervix from the studies of the Johns Hopkins Hospital over an eight-year period. Smears were obtained from the face of the ectocervix and from the posterior cervical fornix. Biopsy specimens were also obtained from each of the four quadrants of the cervix. During the period of study, 5617 women were so investigated. It was found that of the 310 eventually proven cases of cervical cancer, the smear was positive in 71·6% and doubtful in 14·5%. A false negative smear was obtained in 11·3%. Only 4·2% of the biopsies failed to show the actual presence of carcinoma. The efficiency of the smear method appeared to be greater for the preinvasive lesions—the very type of lesion which punch biopsy is most likely to miss. Efficiency increased in the last year of the survey, though at the same time more false positive results were obtained after recognition of basal-cell hyperactivity, a sign more commonly found in malignant than in normal cervices. The authors conclude that the smear technique is a useful screening method, though it should, whenever possible, be supplemented by a biopsy examination. The smear technique is particularly useful in cases in which follow-up studies are indicated and when repeated biopsies would not be appropriate. In the very early cervical cancer, and in the pregnant patient, the smear technique may prove to be preferable and even more efficient than the examination of a specimen obtained by biopsy.

[1] *Am. J. Clin. Path.*, April, 1949.

[1] *Surg., Gynec. & Obst.*, January, 1952.

[2] "Obstetrics", 11th edition, W. B. Saunders, 1955, Philadelphia and London.

[3] "British Obstetric and Gynæcological Practice" (1955). Edited by Holland and Bourne, William Heinemann, London.

[4] *Am. J. Obst. & Gynec.*, December, 1953.

[5] *Am. J. Obst. & Gynec.*, March, 1955.

[6] *Schweiz. med. Wchnschr.*, July 24, 1954.

[7] *J.A.M.A.*, May 19, 1956.

Abstracts from Medical Literature.

SURGERY.

Right Lobectomy of the Liver in Children.

H. Clatworthy and E. Boles (*Surgery* May, 1956) discuss two cases of resection of the right lobe of the liver in children, one aged seventeen months, and the other aged five months. In the first patient the right lobe of the liver was replaced by a hepatoma and in the second by a lymphangioma. The authors discuss the technique of operation and the complications which in the first case were bile peritonitis and jaundice. They point out the advantages of a wide exposure by a combined thoraco-abdominal approach. They found that, after such resections, adequate hepatic function without demonstrable impairment might be expected.

Acute Pneumo-Cholecystitis.

E. Lacour and L. O'Neil (*Surgery*, May, 1956) report a case of acute pneumocholecystitis which, they point out, is a rare condition; only 37 cases have been reported in the literature to date. They state that it is necessary to have X-ray examination of the abdomen to establish the diagnosis pre-operatively. The treatment of choice is early cholecystectomy. Should treatment be delayed, perforation is common and there is a high mortality associated with this delayed treatment. Perusal of the table of the reported cases in their article reveals the variability of the organisms responsible for this condition. Whilst most were clostridial organisms, there were also found aerobic and anaerobic streptococci and *Bacterium coli communis*.

Rupture of the Œsophagus.

V. J. Derbes and R. Mitchell (*Surgery*, May, 1956) point out that a pre-existing œsophagitis or stricture may predispose the œsophagus to rupture, though the accident often happens in an entirely healthy œsophagus. Almost all the tears reported have been in the distal portion of the œsophagus, and have been longitudinal. Rupture allows the contents of the stomach to enter the mediastinum. This is followed by mediastinal emphysema, which shows itself in the neck as subcutaneous emphysema. The mediastinal pleura may rupture, producing a pleural effusion with pulmonary collapse. These changes produce the clinical symptoms, added to which shock and infection play their part. Most instances of œsophageal rupture occur in middle life and old age, especially in the male. There is a sudden onset of violent pain in the epigastrium or precordium typically associated with vomiting. The patient may complain of a sensation of something tearing in the chest. Breathing, swallowing and movements of the body make the pain worse. Examination discloses tenderness or rigidity of the abdominal wall. The characteristic feature is the appearance of subcutaneous emphysema, first observed in the neck, although it may be completely absent. There is dyspnœa and cyanosis. Chest signs are those of a pleural effusion or a pneumothorax which are confirmed by radiological means. The condition is readily diagnosed if the clinician is aware of it; a common mistake is that of the diagnosis of a ruptured peptic ulcer or coronary occlusion. The treatment involves a thoracotomy with repair of the rupture in the œsophagus, followed by drainage of the pleural space and supportive therapy for the shock. According to the authors, 55 patients have been operated on to the date of writing of the article and of those 35 survived. If operation is delayed, the accident has an extremely poor prognosis.

The Therapeutic Value of Lumbar Sympathectomy.

A. Nelson and I. Trimble (*Surgery*, May, 1956) have reviewed the results obtained in 192 patients who underwent lumbar sympathectomy for various disorders. They found that it was impossible to predict the result of operation for an individual patient, by any clinical or laboratory procedure used for pre-operative valuation in this series. They found that in patients with arteriosclerosis, whether or not complicated by *diabetes mellitus*, Buerger's disease or the post-phlebitic syndrome, results were poor in from 59% to 74% of cases. They also found that the presence of any tissue necrosis decreased the likelihood of a good result. In their series the operative mortality in 251 patients who underwent lumbar sympathectomy was 1·2%, and these deaths occurred among patients with *diabetes mellitus*. They felt that, in the light of these poor results, a more vigorous attempt should be made to try a direct attack on the offending occlusion.

Effect of Venous-Shunt Surgery on Liver Function.

D. Ellis, R. Linton and C. Jones (*New England J. Med.*, May 17, 1956) present a study of 125 patients operated on for the relief of portal hypertension in the last ten years. The length of the follow-up period was from one to ten years. The overall mortality was 29%, the operative mortality 11%. By comparing this with other series the occurrence of bleeding was found to be markedly reduced and life prolonged in those patients who underwent surgical treatment. They examined 76 patients by X rays and found that 80% of them had reduction in the size of the œsophageal varices. The authors interpreted this as being evidence of reduced portal pressure. In addition to this they also found demonstrable evidence of improvement in liver function both clinically and by laboratory tests.

Carotid-Cavernous Fistulæ.

A. Walker and G. Allègre (*Surgery*, March, 1956) discuss 24 examples of carotid-cavernous fistulæ. They point out that these fistulæ present a typical syndrome of pulsating exophthalmos and bruit. Whilst the condition is usually precipitated by trauma they feel that there is an inherent weakness of the intra-cavernous portion of the internal carotid artery. They discuss the results of carotid ligation and of trapping procedures in 21 cases and state that after these procedures, hemiparesis or visual disturbances may complicate the relief of the pulsating exophthalmos.

Antibiotics in Thrombophlebitis.

F. Stoesser and P. Wels (*Surgery*, March, 1956) do not believe that the usual case of deep or superficial thrombophlebitis warrants the use of the antibiotics. In 17 cases they could find no bacterial agent in the vein walls or the clot.

Vascular Responses to "Diodrast" and "Urokon".

R. Shaw (*Surgery*, March, 1956) has studied the circulation in extremities undergoing arteriography with "Diodrast" or "Urokon" by means of toe plethysmography. In most cases there was an immediate and striking degree of arteriospasm on injection of the dye, followed in a few minutes by vasodilatation. This vasoconstriction was most marked in the more severe cases of ischæmia. Consequently, caution must be exercised in the performance of arteriograms in ischæmia lest the resulting vasospasm lead to thrombosis.

Pre-Adolescent Kyphosis.

A. B. Ferguson (*J. Bone & Joint Surg.*, January, 1956) concludes, from a review of normal spines and spines afflicted with wedging round-back deformity in the thoracic region, that persistence of the anterior vascular groove in the bodies of the thoracic vertebræ may play a role in the production of deformity by predisposing to anterior collapse of the vertebræ. Actual round-back deformity is the result of wedging of the vertebræ below the region of the fifth, sixth and seventh thoracic vertebræ. This wedging accentuates the kyphosis which is normally present at the fifth, sixth and seventh thoracic vertebræ. The author believes that treatment is justifiable of children in the eight to fourteen years old group who show this sign radiologically and who present early clinical evidence of poor posture with thoracic kyphosis and increased lumbar lordosis.

Combined Hip Fusion and Subtrochanteric Osteotomy.

F. R. Thompson (*J. Bone & Joint Surg.*, January, 1956) points out that arthrodesis of a painful osteoarthritic hip is still the procedure of choice in the attainment of a stable painless hip which will allow the worker to return to long hours of duty. The great disadvantages of the operation have been the magnitude of the surgery involved, the high incidence of pseudarthrosis, the resulting stiff knee and, finally, the expensive months of bed rest in a double hip spica which have been considered necessary in the past in order that union might be secured in a proper, predetermined position. The author describes a procedure developed to overcome these disadvantages and to enable the patient to be ambulatory at an early date. Arthrodesis is performed by denudation of articular cartilage from

the femoral head and the acetabulum. In some cases a broad iliac graft was placed on the anterior surface of the pubic ramus and the head and neck of the femur, and the graft was fixed with screws. In other cases a channel was made in the superior surface of the acetabulum and the head and neck of the femur, and the iliac graft was firmly wedged into it. Osteotomy of the femur was then performed at the level of the lesser trochanter. The author has found that subtrochanteric osteotomy, performed at the time of primary hip arthrodesis, has been helpful in lowering the rate of pseudarthrosis. The use of a single hip spica in conjunction with osteotomy, at the time of the arthrodesis, has not been harmful. The single hip spica has allowed the earlier ambulation of the patient, and, in general, has been successful in maintaining the desired position of the limb.

Tibioperoneal Tenoplasty for Congenital Club-Foot.

J. FABILL (*J. Bone & Joint Surg.*, April, 1956) points out that in any child in whom overcorrection of a *talipes equino varus* can be passively obtained but not actively maintained by contraction of the peroneal muscles and the *extensor digitorum longus*, the condition of peroneal insufficiency exists. In tibioperoneal tenoplasty the *tibialis anterior* is transplanted through a subcutaneous tunnel from above the *ligamentum transversum* to the outer aspect of the dorsum of the foot. In its new location, it is sutured to the distal portion of the *peroneus longus*, which has previously been severed above the outer malleolus. The pronatory action of the intact *peroneus brevis* is strengthened by the attachment to it of the proximal portion of the severed *peroneus longus*. The purpose of this operation is to correct the muscle imbalance and, thereby, to maintain the corrected position of the congenital club-foot and to prevent recurrences. Sixteen feet were operated upon by the author with one poor, two fair, five good and eight excellent results. In no case did hypercorrection occur as a result of overaction of the transplanted muscle, and there were no adhesions around the tendons, no failures of the suture, and no instances of post-operative pain in the foot.

Arthrodesis of the Tuberculous Hip.

J. A. CHOLMELEY (*J. Bone & Joint Surg.*, February, 1956) has reviewed 142 cases of the extraarticular arthrodesis of quiescent tuberculous hips in which there was a fibrous ankylosis. The methods used were the ilio-femoral graft with or without osteotomy, and the ischio-femoral graft by the Brittain or Foley technique. The author has found that successful fusion occurs more frequently when the grafting operation is combined with, or followed by, a femoral osteotomy. It is suggested that this success is due largely to the increased immobilization afforded by the osteotomy. It appears that equally good results may be obtained with either an ilio-femoral or an ischio-femoral graft in these cases, provided that an upper femoral osteotomy is also carried out, preferably at, or soon after, the grafting operation. An upper femoral osteotomy will frequently convert an unsuccessful extraarticular hip graft into a successful one without the need for further grafting.

Volkmann's Contracture.

H. J. SEDDON (*J. Bone & Joint Surg.*, February, 1956) states that in the common type of Volkmann's ischæmic contracture affecting the forearm flexors, the infarct takes the form of an ellipsoid with the axis in the line of the anterior interosseous artery, and with the central point a little above the middle of the forearm. The greatest damage is at the centre, especially in the *flexor digitorum profundus* and the *flexor pollicis longus*, which are often necrotic. Those muscles more superficially placed, and sometimes the deep extensors, are more likely to develop fibrosis. The median nerve runs near the centre of the ellipsoid and may become profoundly ischæmic. The ulnar nerve, lying at the edge of the ischæmic zone, tends to be less severely affected. The treatment for this condition is excision of all tissues irreparably damaged by ischæmia. If this operation is performed within twelve months from the time of injury, correction of the contracture should be almost complete. The tendons of shortened but active muscles are lengthened or transplanted. After such excision it is possible to carry out those reconstructive procedures more commonly used in the surgical treatment of lower motor neurone disorders and of trauma. Several methods of tendon transplantations are available. The median nerve may be repaired, either by a free graft or, in the case where both nerves have been extensively damaged, by an ulnar to median nerve pedicle graft.

BIOCHEMISTRY.

Galactosæmia.

H. M. KALCKAR *et alii* (*Biochim. et biophys. acta*, April, 1956) have concluded that galactosæmia seems to furnish an example of a congenital human metabolic disease in which a specific enzyme is missing. The enzyme which catalyses the exchange of α-galactose-1-phosphate with uridine-diphospho-glucose, forming α-glucose-1-phosphate and uridine-diphospho-galactose, is absent from the blood of galactosæmic subjects.

Adrenal Metabolism.

G. ROSENFELD (*Arch. Biochem.*, May, 1956) has employed an aerobic and anaerobic perfusion technique to study the intermediary metabolism of intact calf adrenals and the effect of disparate chemical and physical agents on their metabolic activity and steroidogenic function. The results revealed that Meyerhof-Embden and Krebs cycle carbohydrate intermediates were rapidly oxidized in contrast to amino and fatty acids. Studies with various selective enzyme inhibitors confirmed the role of the glycolytic and terminal aerobic pathways. The nature and intensity of the effects of these agents on the steroidogenic processes paralleled those on the metabolic activity with the striking exception of amphenone B, which produced only a minor decrease in the oxidative metabolism and a decrease of 75% in corticoid output. A twenty-four-hour incubation at 8° C. and exposure to γ-radiation (1900*r* to 2700*r*) revealed a similar dissociation between their effects on the metabolic and steroidogenic activities of the adrenal. Thus, while a pronounced decline in metabolic activity was invariably associated with a diminution in biosynthetic function, the latter can be markedly depressed without a corresponding depression in the former.

Calcium.

W. F. NEUMAN *et alii* (*J. Biol. Chem.*, April, 1956) have carried out ion exchange studies employing radiocalcium and the ultrafiltration of bovine serum. They have found evidence of the formation of a complex ion in the calcium-bicarbonate system. The complex ion (probably $CaHCO_3^+$) has not been fully characterized, but is so highly dissociated that only an insignificant fraction of the calcium in serum can be bound as a bicarbonate under physiological conditions.

Mechanism of Chloretone Inhibition.

J. MAGER AND Y. AVI-DOR (*Arch. Biochem.*, May, 1956) have shown that in mitochondrial preparations from guinea-pig kidney, chloretone inhibits the activity of the pyridine nucleotide-dependent oxidases. The inhibition is correlated with the destruction of the endogenous DPN. In the non-mitochondrial heart muscle preparation, chloretone blocks the DPNH oxidase system at the stage of cytochrome c reductase; the diaphorase activity of the preparation is not affected by the narcotic.

Liver Fat.

M. J. SPIRO AND J. M. MCKIBBIN (*J. Biol. Chem.*, April, 1956) have studied the lipides of rat liver cell fractions. The analyses reveal that the fractions vary with respect to the amount and type of lipide present, but the phospholipide pattern is quite similar from one fraction to another. The lipide content of the nuclei, mitochondria and microsomes increases in that order, and is composed chiefly of phospholipide with some cholesterol. The supernatant fraction has very little lipide, and that is mainly neutral fat. Fatty infiltration of the liver, incident to choline deficiency, was produced in several groups of rats. No changes in the phospholipide content or in the pattern of any fraction were observed. Neutral fat was found to accumulate in the particulate cell fractions of deficient livers, as well as in the supernatant fraction, and it was also found associated with a lipo-protein material extracted from deficient microsomes.

Cholesterol.

E. STAPLE *et alii* (*J. Biol. Chem., April, 1956*) have described an enzyme system, found predominantly in adrenal glands, which is capable of splitting cholesterol to pregnenolone and isocaproic acid.

British Medical Association News.

MEETING OF THE FEDERAL COUNCIL.

A MEETING of the Federal Council of the British Medical Association in Australia was held at the Medical Society Hall, Albert Street, East Melbourne, on August 27, 28, 29 and 30, 1956, the President, DR. H. C. COLVILLE, in the chair.

MINUTES.

The minutes of the Federal Council meeting of February 27, 28, 29 and March 1, 1956, which had been circulated amongst members, were taken as read and signed as correct.

REPRESENTATIVES.

The following representatives of the Branches were present:

New South Wales: Dr. W. F. Simmons, Dr. A. J. Murray, Dr. R. H. Macdonald, Dr. E. F. Thomson.

Queensland: Dr. A. E. Lee, Dr. J. G. Wagner (proxy for Dr. H. W. Horn).

South Australia: Dr. L. R. Mallen, Dr. C. O. F. Rieger.

Tasmania: Dr. J. B. G. Muir, Dr. L. N. Gollan.

Victoria: Dr. H. C. Colville, Dr. Robert Southby, Dr. J. G. Johnson.

Western Australia: Dr. C. W. Anderson, Dr. D. M. Clement.

THE RETIREMENT OF DR. H. R. R. GRIEVE.

The President, from the chair, referred to the retirement of Dr. H. R. R. Grieve from the Federal Council, and recalled the valuable work which had been carried out by him over a period of many years, especially in connexion with the opposition of the medical profession to proposals made by the Chifley Government for the creation of a National Health Service. The Federal Council resolved:

> That the Federal Council place on record its appreciation of the valuable services rendered to the Federal Council and to the profession in Australia by Dr. H. R. R. Grieve whilst a member of the Federal Council.

FINANCE.

Dr. W. F. Simmons, the Honorary Treasurer, presented a report on the financial statement of the Federal Council as at August 27, 1956. He pointed out that the 1956 capitation fee was £1 5s. per member. The membership of the Branches totalled 9233. Of these, 3826 members were in New South Wales, 1116 in Queensland, 814 in South Australia, 578 in Western Australia, 2661 in Victoria and 238 in Tasmania. The total capitation fees due for 1956 amounted to £11,541 5s. Of this amount, £1960 12s. 6d. was still outstanding. The estimated credit balance at December 31, 1956, was £3905. Dr. Simmons pointed out that at December 31, 1955, there had been a credit balance of £4692 1s., and that the anticipated credit balance at December 31, 1956, represented a decrease in the accumulated funds of a little more than £787. It was therefore obvious that a capitation fee of 25s. was not sufficient to maintain the Federal Council at its present level. Dr. Simmons was critical of those members who objected to the Federal Council's balance of approximately £4000. He thought that an Association of the size and importance of the Federal body, which had been in existence for more than forty years, warranted the maintenance of a credit balance of that amount. He pointed out that provision always had to be made for an emergency meeting of the Federal Council. The estimated expenditure for the current year did not include any provision for the expenses of a delegate to attend the Annual General Assembly of the World Medical Association. At the present moment the Federal Council had as its delegate Dr. L. R. Mallen. He was, however, a member of the Council of the World Medical Association, and excepting for the cost of his stay during the General Assembly, his travelling expenses were met by the World Medical Association. In effect, he acted as a delegate to the World Medical Association at no real cost to the Federal Council. The Federal Council resolved that the capitation rate for 1957 should be £1 5s. Dr. Simmons presented the Federal Council with an estimated expenditure for the year 1957. The total was £11,320.

Dr. W. F. Simmons presented a financial statement of the Federal Council Organization Fund for the period ended August 24, 1956. The fund stood at a total of £1517 10s. 5d.

Dr. Simmons also pointed out that the total standing to the credit of the Federal Council Entertainment Fund amounted to £263 14s. 6d.

Dr. Simmons presented the financial statement of the Federal Independence Fund for the period ended August 24, 1956. The amount to the credit of this fund was £22,060 2s. 3d.

SECRETARIAT.

At the Federal Council meeting in February, 1956, following a request from the New South Wales Branch, it had been resolved that the Federal Council should seek the opinion of the Branches on the separation of the offices of the Federal Council and of the New South Wales Branch. The General Secretary read a letter from the New South Wales Branch, stating that after consideration of a report of the Medical Secretary and the Assistant Medical Secretary, it had now been decided that no change should take place for the present in the existing arrangements in regard to personnel. It was reported that suite number 1 on the second floor of the British Medical Association House, 135 Macquarie Stret, Sydney, had been occupied as the office of the Federal Council as from May 1, 1956.

HENRY SIMPSON NEWLAND PRIZE IN SURGERY.

Dr. W. F. Simmons presented a financial statement of the Henry Simpson Newland Prize Fund in Surgery for the period ended August 24, 1956. The amount standing to the credit of the fund was £1069 5s. 2d. The General Secretary pointed out that the subject of the essay for the prize to be awarded in 1958 was "Factors Influencing the Prognosis in Acute Intestinal Obstruction". He said that this information had been sent to the Branches and to overseas medical associations.

MEDICAL OFFICERS' RELIEF FUND (FEDERAL).

Dr. W. F. Simmons presented an interim report of the trustees of the Medical Officers' Relief Fund (Federal) for the six months ended June 30, 1956. He emphasized the fact that this fund was started in the year 1918, and that it was still paying out money. The amount standing to the credit of the fund was £7408 9s. 5d. During the six months the assets had decreased by £41 7s. 1d. The amount paid to three beneficiaries was £143. The report was adopted.

FEDERAL MEDICAL WAR RELIEF FUND.

On behalf of the trustees, Dr. W. F. Simmons presented an interim report of the Federal Medical War Relief Fund for the six months ended June 30, 1956. The assets of the fund at June 30, 1956, amounted to £18,029 7s. 3d. Eleven benefactions had been paid during the year, and they had absorbed £584 1s. 8d. The assets had decreased during the half-year by £341 12s. 10d. The report was adopted.

HONOURS.

The General Secretary reported that he had, on behalf of the Federal Council, offered the congratulations of the Council to Dr. K. W. Starr, C.M.G., Dr. L. J. Pellew, C.B.E., Colonel J. M. Dwyer, O.B.E., and Dr. W. A. Sloss, M.B.E., on the honours recently conferred on them by Her Majesty the Queen.

INQUIRIES FROM OVERSEAS ABOUT MEDICAL PRACTICE IN AUSTRALIA.

The General Secretary reported that he had as usual received several inquiries from medical practitioners overseas in regard to conditions of practice in Australia. He had in each instance sent a suitable reply.

SUPPLY OF THE "BRITISH MEDICAL JOURNAL" TO TWO MEMBERS, HUSBAND AND WIFE.

A letter was received from the Queensland Branch, asking whether an arrangement similar to that made with the Australasian Medical Publishing Company, Limited, could be made with the British Medical Association in regard to the supply of the *British Medical Journal*. It was explained that the Manager of the Australasian Medical Publishing Company, Limited, when requested, was accustomed to sending only one copy of *The Medical Journal of Australia* to husband and wife who were members of one of the Australian Branches. The General Secretary pointed out that for such an arrangement to be made possible in connexion with the *British Medical Journal* an alteration in the by-laws of the Association would be needed. On the motion of Dr. A. E. Lee, it was resolved that a statement in regard to the arrangement adopted by the Australasian Medical

Publishing Company, Limited, in such circumstances, should be sent to the Branches.

VISIT TO TOOWOOMBA, QUEENSLAND, OF DR. A. BRUNSCHWIG.

A letter was received from the Queensland Branch forwarding a copy of a letter written to the *Toowoomba Chronicle* by the President of the Downs and South Western Medical Association in regard to the visit of Dr. Brunschwig and comments of the Press thereon, and also copies of newspaper items to which exception had been taken. The correspondence was noted.

REQUESTS FROM THE TASMANIAN BRANCH.

A letter was received from the Tasmanian Branch, asking that consideration should be given to the possibility of the classification of doctors' motor-cars as commercial vehicles. It was pointed out that sedan motor-cars could in no circumstances be classed as commercial vehicles. The Tasmanian Branch also asked on behalf of a member for assistance in obtaining an import licence for a particular kind of slit lamp. The General Secretary said that efforts were being made to secure the licence.

A DOCTOR'S WIFE AS HIS PARTNER IN PRACTICE.

A letter was received from the Western Australian Branch, inquiring into the possibility of a member taking his wife, who was not qualified as a medical practitioner, into partnership with him in his practice. A reply had been sent that such a procedure would be unethical.

INQUIRIES FROM THE NEW ZEALAND BRANCH.

The General Secretary reported that he had received a letter from Dr. P. P. Lynch, the Chairman of the Biennial Conference to be held at Wellington, New Zealand, from February 19 to 22, 1957, asking for the names of members of the Australian Branches who contemplated attending the conference. The General Secretary reported that he had written to the Branches and had forwarded some names to Dr. Lynch.

The New Zealand Branch had written asking for information in regard to medical defence in Australia. The information had been supplied.

INQUIRIES FROM SOUTH AFRICA.

A letter had been received from the Cape Western Branch of the Medical Association of South Africa, asking what special facilities were available for doctors in regard to the parking of motor-cars. The reply had been sent to the effect that the only State in which any special facilities were available was South Australia. Details had been given.

INQUIRIES ABOUT THE OBTAINING OF A FELLOWSHIP IN THE UNITED STATES OF AMERICA.

A letter was received from an Australian practitioner in England asking for information that would help him to obtain a grant or a fellowship to enable him to proceed from England to the United States for two years' post-graduate study at the Peter Bent Brigham Hospital, Boston. It was explained that the writer of the letter was the son of an Australian doctor who had been killed in Malaya, and the Federal Council decided that he should be advised to write to the Trustees of the Federal Medical War Relief Fund.

HOSPITAL ADMINISTRATION AT CORNELL UNIVERSITY.

The General Secretary presented a letter from the Graduates' School of Business and Public Administration at Cornell University, United States of America. The letter asked that the attention of members should be drawn to the programme of teaching and research in hospital administration and asked for the names of any members who would be interested in being considered for a fellowship and for the carrying out of post-graduate work in hospital administration at Cornell University. The General Secretary said that he had sent the letter on to the Branches, but that the time left for the making of applications was insufficient. In any case, he thought that few Australian graduates would be likely to seek training overseas in hospital administration, since a course had recently become available in that subject at the University of Technology of New South Wales.

CENTRAL COUNCIL FOR HEALTH EDUCATION, LONDON.

The General Secretary reported that he had received an intimation about the holding of a summer school in health education at Stoke Rochford, Lincolnshire, England, from August 14 to 24, 1956. The information had been sent to the Branch Councils.

COMMONWEALTH OFFICE OF EDUCATION.

The General Secretary reported that he had received a letter from the Commonwealth Office of Education, forwarding a communication from the Institute of Ophthalmology, Aligarh, India, in regard to post-graduate training in ophthalmology which was available at the Institute. The information had been sent to the Branches.

RECRUITMENT OF AN ORTHOPÆDIC SURGEON FOR JAVA, INDONESIA.

The General Secretary reported that he had received from the Federal Council of the Air Force Association a copy of a letter from the World Veterans Federation in regard to the recruitment of an orthopædic surgeon for employment for one year in the Solo Rehabilitation Centre, Java, Indonesia. The General Secretary reported that he had the name of an Australian orthopædic surgeon who was willing to do this work for one year and his name had been sent to the Air Force Association.

THE PRESENT SITUATION IN CYPRUS.

The General Secretary reported that he had received a letter from Dr. S. Nittis, President of the Hellenic Medical Society of New York, "drawing attention to the present situation in Cyprus". No action was taken.

THE PHILIPPINE MEDICAL ASSOCIATION.

The Federal Council received a report from Dr. L. R. Mallen of the forty-ninth annual meeting of the Philippine Medical Association, and also on the Asian Confederation of Medical Associations, whose meetings he had attended at Manila in April, 1956. Dr. Mallen said that in his opinion it was correct that the Australian medical profession should be represented at the gatherings. He and Dr. J. K. Maddox, the Federal Council's representatives, had been most cordially welcomed and lavishly entertained. The Federal Council resolved that its sincere thanks should be extended to the Philippine Medical Association for the hospitality afforded to its two representatives, Dr. L. R. Mallen and Dr. J. K. Maddox, and that the congratulations of the Council should be sent to the Association on the success of its forty-ninth annual meeting.

THE AMERICAN COLLEGE OF CHEST PHYSICIANS.

The General Secretary said that he had received a notice in connexion with the Fourth International Congress on Diseases of the Chest, to be held at Cologne, Germany, from August 19 to 23, 1956.

THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

The General Secretary said that he had received a letter from Dr. Gerald D. Dorman, expressing his appreciation of the letter of congratulations and good wishes received from the President of the Federal Council, Dr. H. C. Colville, on the 150th anniversary of the founding of the Medical Society of the County of New York.

INTERNATIONAL CONGRESS ON RHEUMATIC DISEASES.

The General Secretary said that he had received a notice of the Ninth International Congress on Rheumatic Diseases, which was to be held under the auspices of the Canadian Rheumatism Association at Toronto, Canada, in June, 1957. The letter had come from Dr. D. C. Graham, the Chairman of the Congress Committee. The information had been sent to the Branch Councils.

A PROPOSED AUSTRALIAN SOCIETY OF MAXILLO-FACIAL SURGEONS.

The General Secretary reported that he had received from Dr. G. Christensen a letter asking for information in regard to the formation of a Special Group to be known as the Australian Society of Maxillo-Facial Surgeons. Dr. Christensen also wished to know how the specialty might be included in the programme of future medical congresses. It was resolved that information should be sent to Dr. Christensen on the formation of Special Groups. The inclusion of a special section of maxillo-facial surgery would rest with the executive committee of each congress.

THE DIABETES FEDERATION OF AUSTRALIA.

The General Secretary read a letter which he had received from Miss Ruby W. Board, the President of the Diabetes Federation of Australia. Miss Board wrote that the Diabetic Associations of Victoria, South Australia and Tasmania and of New South Wales had decided to form the Diabetes Federation of Australia. The aim of the Association was to help the diabetic patient to understand his complaint and to adjust himself to the necessary routine, and to consider

his welfare in every way possible to a lay organization. It was understood that no medical advice was given to inquirers, who were referred back to their own practitioners. A medical advisory panel gave advice on any medical problem referred to the Association. The Association's journal, hitherto published only in New South Wales, would become a Federal journal. Circulation would immediately increase from 2500 to 5000 to include membership in other States. It was hoped to improve the journal in quality so that it might also be of interest to the general practitioner, who might find it of use, both for himself and to be recommended to his patients. Dr. Peter Hall had agreed to act as Honorary Editor, and to assist him there would be an editorial committee in each State. The opinion of the Federal Council was asked on several matters. In the first place, medical articles contributed to the journal so far had been signed with a *nom-de-plume*. It was thought that such articles would have greater weight if the name of the author was stated. In the second place, the services offered by all diabetic associations were being used increasingly. In England—and indeed in Victoria and South Australia—there was much closer identification with the medical profession than there was in New South Wales. In England none of the many branches functioned without the active good will of medical practitioners. In Australia it was proposed to approach the local associations of the British Medical Association requesting their cooperation. Miss Board asked if the Federal Council would approve of this procedure. In the third place, it was essential that there should be unanimity in the medical and lay approach to this subject. It was the opinion of the Australian Federation that providing the community understood that the medical control of the patient was paramount, better results would be obtained by agreement and cooperation with the medical profession. If this was the opinion of the Federal Council, Miss Board asked whether it would be possible for the Diabetes Federation to be made known to the medical profession through The Medical Journal of Australia. The Federal Council discussed the matter and agreed that contributions to the journal of the Diabetes Federation should not be signed by authors' names. The reply to the Diabetes Federation of Australia was left in the hands of the General Secretary.

The College of Pathologists of Australia.

A letter was received from Dr. E. F. Thomson, President-Elect of the College of Pathologists of Australia, advising of the incorporation of the College and of the inaugural meeting to be held in Melbourne on August 30, 1956.

Bureau of Medical Economic Research of the American Medical Association.

The General Secretary reported that he had received from Dr. G. Lull, the Secretary of the American Medical Association, a letter advising that Dr. F. G. Dickinson, of the Bureau of Medical Economic Research of the American Medical Association, would be visiting Australia on November 4, 1956, and would spend some time in the Commonwealth and also in New Zealand.

The Exportation of Drugs from Australia.

The General Secretary said that the New South Wales Branch had forwarded a letter from the Collector of Customs in regard to the exportation of drugs from Australia. It was pointed out that the exportation of the following drugs was prohibited under the Customs Regulations, namely: narcotics, including synthetic narcotics, insulin, alcoholic extracts of pancreas glands of cattle and pigs and preparations containing pituitary glands of pigs, sheep and cattle, and extracts thereof. Similarly the exportation of any drug prescribed free as a pharmaceutical benefit under the *National Health Act* was illegal. There were, however, no export restrictions under the Customs "Prohibited Exports" Regulations in respect of proprietary medicines unless they came within the category of the foregoing commodities. The General Secretary said that the letter had only recently been received and would be sent on to the Branches.

Australasian Medical Congress (British Medical Association).

Ninth Session.

The General Secretary, on behalf of the General Committee of the Ninth Session of Congress held in Sydney from August 20 to 27, 1955, presented a report and audited financial statement, together with a cheque for £8035 0s. 8d. The General Secretary explained that the financial success of the Congress was largely due to the highly successful Trade Exhibition. The profits made at a large congress such as had been held in Sydney would be used to meet the needs of congresses in smaller places, for example, the Tenth Session which was to be held in Hobart in 1958. The numerical strength of the Tasmanian Branch was so small that its members could not be expected to provide the entertainment and hospitality which had characterized the Sydney Congress. The Congress Ball, for example, was generally regarded as the responsibility of the Branch which was the host of Congress. In Tasmania it would be absurd to entertain such an idea, and the Congress funds of the Federal Council would have to be used to assist the Tasmanian Branch.

A letter was received from Dr. Phyllis Rountree, complaining of the publication by Andrews Laboratories Proprietary, Limited, of an extract from her article, "Epidemiology and Control of Staphylococcal Infections of the Newborn", without her knowledge or consent and without the consent of the Executive Committee of Congress. Dr. Rountree, who is a Doctor of Science, published a disclaimer in the columns of this journal in the issue of August 11, 1956, at page 237.

Tenth Session.

The General Secretary reported that the Tasmanian Branch had accepted the invitation of the Federal Council to hold the Tenth Session at Hobart in March, 1958. It had nominated for appointment as President Dr. J. B. G. Muir, and as Honorary General Secretary Dr. F. R. Fay. These appointments had been made. The General Secretary reported that progress had already been made in the arrangements for the holding of the Tenth Session. He and the Editor of The Medical Journal of Australia had attended the first meeting of the Executive Committee.

Inquiries had been received from the Executive Committee in regard to some details in connexion with the election of officers. The Executive Committee had also asked that an amount of £1000 be made available for the payment of preliminary expenses. The Honorary Treasurer, Dr. W. F. Simmons, had complied with the request and had sent a cheque for £1000. The action of the Honorary Treasurer was approved.

The General Secretary said that he had received an inquiry from Dr. J. Bruce Hamilton asking for information in regard to the procedure laid down in respect of the appointment of the President of Congress. This information had been supplied.

Australasian Medical Publishing Company, Limited.

The General Secretary reported that he had received notice of the meeting of the Directors of the Australasian Medical Publishing Company, Limited, which was held on August 26, 1956, and also of the forty-third ordinary general meeting, which was to be held on September 12, 1956, at Sydney.

Organization of the Profession.

The Federal Council considered a motion which had been sent by the Queensland Branch as follows:

> The Federal Council should be informed that in view of recent happenings that seem to show a disregard of the method of determining Association policy in Australia that has existed for the past ten years, the Branches of the British Medical Association in Australia should reaffirm their adherence to this principle, namely, that where matter common to all Branches has been considered by the Branches, the subsequent majority decision of the Federal Council on the matter then becomes the policy of the Association and is binding on all Branches.

Discussion on this motion took place. It centred chiefly around the stabilization of fees, to which reference was made at another stage of the meeting. The General Secretary said that the matter had been referred to the Branches. The Western Australian Branch agreed with the Queensland Branch, and stated that there was no general move for increase of fees in Western Australia. The South Australian Branch supported the Queensland Branch, and both the Victorian and New South Wales Branches left the matter in the hands of their delegates. The President referred to the motion on the subject carried at the Federal Council meeting in March, 1953. He explained that the Federal Council was concerned with the need for stabilization of fees and asked that thought be given to stabilization and not to fee fixing. Dr. A. E. Lee said that he did not agree with this interpretation. The Queensland motion was put to the meeting and lost.

Medical Planning.

National Health Service.

The Minister for Health, Dr. Donald Cameron, paid a short visit to the Federal Council meeting; he was accompanied by

the Director-General of Health, Dr. A. J. Metcalfe. He was formally welcomed by the President who expressed the gratification of the members of the Council that the Minister was by his visit following the precedent established by his predecessor, Sir Earle Page. An informal discussion on different aspects of the National Health Service was held. The Minister on the one hand spoke of the difficulties at present confronting the Commonwealth Government and his own department in particular; the Council, on the other hand, tried to explain its attitude and aims for the furtherance of the National Health Service.

National Health Act, 1953-1955.

Reference was made to Section 19 of the *National Health Act, 1953-1955.* Section 19 reads as follows:

> 19. (1) Commonwealth benefit is not payable in respect of a professional service where the medical expenses in respect of that service are paid or payable to an authority conducting a public hospital or to a person or body of persons acting on behalf of an authority conducting a public hospital.
>
> (2) The last preceding sub-section does not apply where the Minister is satisfied that a professional service rendered at a public hospital at a particular place is not otherwise available at that place.
>
> (3) In this section—"Public hospital" means premises or part of premises which are recognized in accordance with the law of a State or Territory as a public hospital and in which patients are received and lodged for hospital treatment, and includes, in relation to the State of South Australia, a hospital to which Part 4 of the *Hospitals Act,* 1934-1952, of that State applies; "Hospital treatment" has the same meaning as in Part 5 of this Act.

The General Secretary explained that the clause in question of the Act was one which had given rise to much concern amongst members of the Federal Council and of Branch Councils. The object of sub-clause 2 was to enable the benefit to be provided in areas where the service could not be rendered by a private practitioner, and, in particular, pathological and radiological services. As a matter of fact, it was the position in Canberra which had given rise to the inclusion of the sub-clause in the Act, as there was no pathologist or radiologist in the capital city. However, it had become known that benefits had been paid in respect of pathological and radiological services rendered at public hospitals in areas where the service could be provided by private practitioners, and Sir Earle Page, when the matter had been raised with him, said that he found it difficult to refuse to allow the application of sub-clause 2 to any hospital which was providing the services in question. Quite recently a medical practitioner had decided that he would commence practice as a radiologist in a town where there was no radiologist and where the hospital did all the X-ray examinations for the local private practitioners, and he wrote to the Minister asking him if the declaration in respect of the provision of radiological services would be waived if he commenced practice in that town. In effect, what the practitioner wanted to know was whether the benefits would be paid to contributors who had their X-ray work done at the hospital, and as all the X-ray work up to the present time had been done at the hospital it would obviously be necessary for the practitioner to know what his position would be in the event of his commencing practice.

The Minister, realizing the importance of the point raised, consulted the Crown Law Department. On the advice given the Government found it necessary to amend Section 19 of the *National Health Act* so as to lay down specifically the services, that is, radiological and pathological, in respect of which benefits would be payable, and for the past eighteen months had been paid, when the services were rendered at public hospitals, and the Minister for Health advised the Federal Council accordingly.

The President informed the Minister that an amendment of Section 19 such as he understood was contemplated would be completely opposed to the policy of the Federal Council and he wished to enter an emphatic protest against the making of such amendment. The Minister had replied that he understood fully the feelings of the Federal Council in the matter. He expressed the opinion that the proposed amendment, while it would perpetuate the state of affairs at present obtaining for the particular benefits, would also ensure that the Minister would in future be unable to issue any declaration for the payment of any benefits whatsoever for services rendered by public hospitals other than radiological and pathological, and that such payments would be payable only by further amendments to the Act.

The Federal Council approved of the letter written by the President to the Minister and reaffirmed its objection to benefits being paid for X-ray and pathological services at public hospitals when the services were otherwise available from private practitioners. The Federal Council also resolved that it took strong exception to the amendment to Section 19, which permitted payment of benefits for all medical services rendered in public hospitals in Territories of the Commonwealth, excluding Canberra Community Hospital, Australian Capital Territory.

A letter was received from the New South Wales Branch, submitting that representations should be made to the Minister for Health that a right of appeal should be given to medical practitioners against all penalties imposed under the *National Health Act.* In discussion it was clear that the Branches approved of the views of the New South Wales Branch, and the Federal Council resolved to inform the Minister for Health that it was firmly of the opinion that there should be a right of appeal against all penalties imposed on medical practitioners under the *National Health Act.*

National Health Act, 1956.

As copies of the *National Health Act,* assented to on June 30, 1956, were not available, the General Secretary had supplied the Branches and the members of the Federal Council with a copy of the provisions of the Act.

The Retirement of the Right Honourable Sir Earle Page.

The General Secretary reported that he had received from Sir Earle Page a letter expressing his appreciation of the kind remarks made by the Council in the resolution adopted by it in regard to his work as Minister for Health.

Pensioner Medical Service.

In opening the discussion on the Pensioner Medical Service, the President pointed out that the agreement with the Federal Government for the conduct of the Pensioner Medical Service by the medical profession had expired in October, 1955. Sir Earle Page, who was at that time Minister for Health, had been approached for a new agreement, but no agreement had been made before the meeting of the Federal Council at Hobart in February, 1956. Dr. Donald A. Cameron, Commonwealth Minister for Health, had attended the Hobart meeting of the Federal Council and had discussed the National Health Service in general terms.

The President reminded the Federal Council that he had been informed of the basic terms for a new agreement. The Federal Council had before it a letter from the Minister, dated May 2, 1956, in which the Minister referred to a conference held between himself and the executive officers of the Federal Council. In this letter the Minister stated that it had appeared at the conference that both the Government and the Association were anxious for a renewal of the agreement, substantially in its present terms, and the only difference of opinion was on the amount of remuneration to participating doctors. The Minister made certain proposals. His first was that the agreement should be renewed in its present form. The second was that the scope of services should be defined as those that had been discussed at the conference in April. The third was that the pensioners and dependants eligible for medical services under the agreement should be those defined by Section 4 of the *National Health Act,* 1953-1955, who were holding a current entitlement card. The fourth was that the fees to be paid by the Commonwealth to participating doctors should be: surgery consultation, 10s.; domiciliary visit, 12s. The fifth suggestion was that the mileage provision should be varied so as to provide that: (*a*) In more sparsely populated areas, where the practitioner might be sick or absent, the nearest participating doctor to attend the patient would be paid mileage, regardless of whether the patient was outside the doctor's area. In all other respects the present provisions would apply in such cases. (*b*) A special mileage payment should be made where it was necessary for a medical practitioner to cross a river by ferry to attend a patient, provided the attending doctor was the nearest participating doctor. It was proposed that in such cases the amount of the special mileage payment should be determined according to the circumstances of the particular case. The question of the reduction of the radius beyond which mileage was payable from the present three miles to two miles was being further taken up with the Treasurer, and the Minister stated that he would advise the President later in regard to the matter as soon as it was possible to do so. The sixth suggestion was that the new agreement should not specify a period for which it was to operate, but should provide for variation of the terms and conditions, including fees at any time by agreement of the parties. Under Section 32 (3) of the *National Health Act,* 1953-1955, the agreement could be terminated at any time by agreement of the parties. In the seventh place, the rules applicable to the attendance

by a doctor of a number of patients at the same place during the same visit should be determined in the following way: When the doctor attended a number of patients at the same place (other than in surgery) during the same visit (*a*) if the number attended was not more than six, payment for the attendance in excess of one should be made at the rate applicable to surgery consultations, or (*b*) if the number of attendances exceeded six, payment for all those attendances should be made by a sessional fee. The Council's acceptance of this sessional fee proposal was subject to the proviso that a satisfactory fee should be agreed upon. The Minister added that he had discussed this with the Treasurer, who proposed that the rate should be £2 12s. 6d. for the first full hour and 15s. 9d. for each subsequent half-hour or substantial part thereof. The General Secretary stated that the Minister's letter had been sent to the Branches and that they had unanimously refused to accept the scale of remuneration suggested. In reply to the Minister's letter, the President had written under date May 30, 1956, and stated that it had been understood by the Federal Council that it was the intention of the Commonwealth Government to establish a scheme of voluntary insurance for pensioners which would cover them for certain specific items in the schedules to the *National Health Act*, and which would presumably cover them for the type of service that had been referred to in the letter. Such an insurance scheme would be complementary to the Pensioner Medical Service and the two in conjunction would provide an adequate cover for all likely medical contingencies to which pensioners as a class would be subject. It was obvious that the acceptance of the proposed scope of service for the Pensioner Medical Service by the Federal Council would be conditioned on the establishment of the complementary insurance scheme. The President therefore asked the Minister the following questions: (i) In the event of an agreement being reached on the basis of the proposed scope of services for the Pensioner Medical Service, was it the intention of the Government to proceed immediately with the establishment of a complementary voluntary insurance scheme for pensioners? (ii) In the considerable interval which would have to elapse between the reaching of an agreement on the scope of the Pensioner Medical Service and the actual implementation of the insurance scheme, was it the intention of the Government to allow medical practitioners to continue to claim payment by voucher for the wider scope of service at present being provided? (iii) What were the Government's intentions with regard to the scope of service for those pensioners who did not elect to join the insurance scheme when it became available? The Minister had replied on July 3, 1956, that he could appreciate the President's view that acceptance by the Federal Council of the definition of the scope of service proposed in the letter of May 2, 1956, would be conditional on the establishment of a complementary insurance scheme for pensioners. As it was not now intended to proceed further with that scheme, the Minister agreed that for purposes of the new agreement it would be preferable to adopt the broad definition as previously proposed to the Federal Council, and he suggested the following: "The medical service within the scope of the Pensioner Medical Service shall be all such services as are ordinarily rendered by a general practitioner in the surgery or at the home, including the treatment of a patient who has undergone a surgical operation from the time that he returns to his home from a hospital, but not including the treatment of fractures, excepting those of the toes, fingers and ribs."

The General Secretary reported that he had received a further letter from the Minister dated August 22, 1956, in which the Minister asked for facts which the Federal Council cared to use to substantiate its request for increased remuneration for the Pensioner Medical Service.

The Federal Council held a general discussion on the National Health Service and the Pensioner Medical Service. It was first of all made quite clear again that there was, at present, no existing agreement between the Government and the medical profession in regard to the operation of the Pensioner Medical Service. The Federal Council resolved that it was unwilling to enter into an agreement with the Commonwealth Government for the provision of medical services to pensioners on the terms offered by the Minister for Health in his letter of May 2, 1956. At the same time it decided that the proposal of the Minister that the agreement regarding the provision of medical services to pensioners should be renewed in its present form should be approved. The request of the Federal Council was that the remuneration to medical practitioners carrying on the service should be 12s. 6d. for a surgery consultation and 15s. for a domiciliary visit. The scope of the service was discussed and the Federal Council resolved that the scope of the service to be provided under the new Pensioner Medical Service agreement should be that submitted by the Minister, with the deletion of the last clause, so that the definition would read: "The medical services within the scope of the Pensioner Medical Service shall be all such services as are ordinarily rendered by a general practitioner in the surgery or at the home, including the treatment of a patient who has undergone a surgical operation from the time he returns to his home from a hospital." The Minister for Health had proposed that the pensioner and dependants eligible for medical services under the new agreement should be those defined by Section 4 of the *National Health Act*, 1953, who were holders of current entitlement cards. The Federal Council approved of this suggestion. The Federal Council discussed the question of mileage and decided to urge the Minister to reduce the radius beyond which mileage was payable from the present three miles to two miles. In regard to the period for which the agreement was to operate, the Council decided to ask the Minister for Health to provide in the *National Health Act* that the agreement should be reviewed at least every two years. The Federal Council approved the proposal of the Minister that where the doctor attended a number of patients at the same time and at the same place (other than his surgery) during the same visit (*a*) if the number attended was not more than six, payment for the attendances in excess of one should be made at the rate applicable to surgery consultations; or (*b*) if the number of attendances exceeded six, payment for all these attendances should be made by way of a sessional fee. The Federal Council, however, did not accept the proposal of the Minister that the sessional rates applicable in such circumstances should be £2 12s. 6d. for the first full hour and 15s. 9d. for each subsequent half-hour. It held that the rates should be £3 3s. for the first full hour and £1 1s. for each subsequent half-hour or part thereof.

In accordance with the Minister's suggestion, the Federal Council discussed the reasons which should be advanced for the request for increased payment in connexion with the Pensioner Medical Service. After discussion of this subject, the conclusions reached were embodied with the resolutions already described in a letter which it was resolved to send to the Minister under the signature of the President. In the course of the letter the President wrote as follows:

> In accordance with your suggestion in your letter to me of August 22, 1956, the Council wishes to submit to you the following facts in support of their request:
>
> The contention that if the fees were 9/- and 11/- in January, 1952, they should now, in accordance with the findings of the Victorian actuarial experts, be 9/9 and 11/11, is completely fallacious because the two sets of figures do not apply to the same service.
>
> The acceptance by the Federal Council of fees of 9/- and 11/- for a period of three years from January 1, 1952, was on the distinct understanding that there would be no alteration in categories of pensioners or conditions of service during that period. Actually, within a few months of the commencement of the agreement the Government instituted the first of several increases in categories of pensioners and liberalizations of the means test, so that the Federal Council at its meeting in October, 1953, resolved:
>
> > That the Minister be informed that as the entitlement to old age and other pensions has been materially liberalized by the Commonwealth Government, the agreement to attend pensioners at fees of 9/- and 11/- for three years from January 1, 1952, has automatically become subject to review.
>
> It is therefore clear that even if the value of money and the cost of living had remained unaltered since January, 1952, the Federal Council would still be claiming a substantial increase in fees for the Pensioner Medical Service.
>
> In support of increased fees the following reasons are advanced:
>
> 1. The amount of concession has always been excessive and the increase requested by the Federal Council would do no more than establish a reasonable proportion of concession.
> 2. Running costs of medical practices have increased considerably since the last agreement was made in November, 1954, when fees of 10/- and 12/- were accepted as concessional fees.
> 3. That increased costs of conducting the service by medical practitioners should be relative to those in 1954 when the last agreement was made.
> 4. It has always been impracticable to collect, and therefore charge, an "out-of-hours" fee to pensioners.

5. In view of the time factor in making visits there should be a greater margin between fees for consultations and visits.
6. The time spent in attending a pensioner is, on the average, greater than that spent on a private patient.
7. The actual cost of living has increased since the Victorian actuarial survey.
8. When the Pensioner Medical Service was first introduced in 1950 the medical profession offered to the Commonwealth Government a 40% reduction in private fees, so that the rates for attendance were 6/- per consultation and 7/6 per visit. The profession is still willing to offer a 40% reduction in the prevailing fees, so that the rates for attendance would be 12/6 per consultation and 15/- per visit.

In the event of the Government being prepared to reconsider this matter favourably, thus leading to an agreement being ultimately reached, the Council wishes to inform you of the following resolutions relating to other matters mentioned in your letter of May 2, 1956:

(a) "That the proposal of the Minister for Health that the agreement regarding the provision of medical services to pensioners be renewed in its present form be approved."

(b) "That the definition of the scope of the general practitioner medical services to be provided under the new Pensioner Medical Service agreement, as submitted by the Minister for Health, be amended by the deletion of all words after the word 'hospital', so that the definition will read—'The medical services within the scope of the Pensioner Medical Service shall be all such services as are ordinarily rendered by a general practitioner in the surgery or at the home, including the treatment of a patient who has undergone a surgical operation from the time that he returns to his home from a hospital'."

(c) "That the proposal of the Minister for Health that the pensioners and dependants eligible for medical services under the agreement be those defined by Section (4) of the *National Health Act*, 1953-1955, who are holders of current entitlement cards be approved."

(d) "That the Minister for Health be urged to reduce the radius beyond which mileage is payable from the present three miles to two miles."

(e) "That, in regard to the period for which the agreement is to operate, the Minister for Health be requested to provide in the *National Health Act* that the agreement shall be reviewed at least every two years."

(f) "That the proposal of the Minister for Health that where the doctor attends a number of patients at the same place (other than his surgery) during the same visit:

(i) if the number attended is not more than six, payment for the attendances in excess of one be made at the rate applicable to surgery consultations; or

(ii) if the number of attendances exceeds six, payment for all these attendances to be made by way of a sessional fee,

be approved."

(g) "That the proposal of the Minister for Health that the sessional rates applicable where a medical practitioner attends a number of patients at the same place (other than his surgery) be £2/12/6 for the first full hour and 15/9 for each subsequent half hour be not approved, and that the rates be £3/3/- for the first full hour and £1/1/- for each subsequent half hour or part thereof."

It would be appreciated if your decision on these matters could be reached and communicated to me at the earliest possible moment, as the Federal Council is anxious to communicate them in turn to the medical practitioners throughout Australia who have been carrying on this service at the previous rates under protest since November 1, 1955, and whose personal decisions as to whether they are prepared to continue to do so will determine the ultimate fate of the Pensioner Medical Service.

The Federal Council further resolved that if the Minister's reply was unfavourable the Federal Council should communicate this information to the Branches to inform them that the Federal Council had done its best to improve the conditions of the Pensioner Medical Service and had failed to do so, and should request advice from the Branches about any further action they might desire the Federal Council to take.

Reference was made to pharmaceutical benefits under the Pensioner Medical Service.

A letter was received from the Queensland Branch forwarding the recommendation of a member that Reserpine, Mephenesin (Carbamate), Mercloran or Diamox and Piriton, Perazil or Ambodryl, or other potent antihistaminics be included in the list of pharmaceutical benefits available to pensioners. The General Secretary said that the recommendation had been sent to the Director-General of Health, Canberra.

A letter was received from the Western Australian Branch, requesting that a vitamin mixture or tablets to supplement the inadequate diet available to pensioners should be included in the pharmaceutical benefits. It was pointed out in discussion that a mixed vitamin tablet was available at the present time.

A letter was received from the Victorian Branch, forwarding a recommendation of the Mildura Base Hospital Clinical Society that B.T.Z., Serpasil and Mercloran should be included in the list of drugs available to pensioners. This communication had been sent to the Director-General of Health.

General Pharmaceutical Benefits.

Several communications were received from the New South Wales Branch in regard to the provision of additional general pharmaceutical benefits. The first recommendation came from the Dermatological Association of Australia (British Medical Association) and from a member that pemphigus should be included in the list of diseases for which ACTH and cortisone might be prescribed. A New South Wales Branch member had recommended that Mistonine, for the treatment of *myasthenia gravis*, should be included in the list of pharmaceutical benefits. Another New South Wales Branch member had recommended that sarcoidosis, *lupus erythematosus* and idiopathic pulmonary fibrosis should be included in the list of diseases for which cortisone might be prescribed. The recommendations had all been sent to the Director-General of Health.

Reference was made to the revision of the second schedule of restricted drugs. At the Hobart meeting of the Federal Council in February, 1956, it had been suggested that the revision of the schedule should be referred at an early date to the Antibiotics Committe of the National Health and Medical Research Council with a view to its making recommendations in regard to the revision under the Pharmaceutical Benefit Regulations. Dr. Edgar Thomson explained that the revision was being done and he hoped that the completed document would be presented to the November meeting of the National Health and Medical Research Council.

At its February, 1956, meeting the Federal Council had considered the prescription form proposed by the Minister for Health for the prescribing of restricted antibiotics, and had decided to refer it to the Branches. The replies of the Branches were read. All except the Tasmanian Branch were opposed to the use of the form. The Federal Council resolved that it did not approve of the form.

A letter was received from the South Australian Branch, asking that consideration should be given to the suggestion that the cost of antibiotic sensitivity tests should be refunded by the Commonwealth Government. The General Secretary said that the proposal had been referred to the Branches. Some had supported the suggestion and others had disagreed with it. After discussion the Federal Council resolved that representations should be made to the Minister for Health that the cost of antibiotic sensitivity tests should be borne by the Commonwealth Government.

It was noted that under Section 134A of the *National Health Act*, Dr. Patrick James Francis Nally, of 127 Main Road, Moona, Tasmania, and Dr. Frank Fowler, of Herne Bay, New South Wales, had been deprived of authority to prescribe under the provisions of the Act for a period of twelve months.

Medical Benefits.

Reference was made to the schedules of benefits under the *National Health Act*, 1956. It was noted that the Act gave power to the Minister for Health to determine, where a medical service was not specified, an amount not exceeding £11 5s. to be the appropriate amount of Commonwealth

benefit in respect of that service, and where a contributor incurred or had incurred medical expenses in respect of a medical service while that determination was in operation or was deemed to have been in operation, (a) that the medical service should be deemed to be a professional service specified in the second schedule of the Act, and (b) the amount specified in the determination should be deemed to be specified in that schedule in relation to that medical service.

At previous meetings of the Federal Council a request was received from the Ophthalmological Society of Australia (British Medical Association) asking that representation should be made to the Minister in regard to amending the definition of professional attendance. It had been pointed out to the Minister that if the addition of the word "solely" was made, the prescription would apply only when the patient consulted an ophthalmologist solely for the purpose of correction of errors of refraction. The request had not been granted and the Ophthalmological Society wrote again, asking that further representation should be made to the Minister. It was resolved that this should be done.

Reference was made to anomalies in the schedule of benefits. Two communications had been received under this heading. The first came from the New South Wales Branch, which forwarded a list of anomalies prepared by Dr. E. S. Stuckey, a member of the New South Wales Branch Council, and also a member of the Executive Committee of the Medical Benefits Fund of Australia. The list drawn up by Dr. Stuckey was long and detailed. The second communication came from the Urological Society of Australasia and drew attention to anomalies in respect of urological procedures. The President asked whether it was any use making an attempt to have anomalies corrected. Dr. A. E. Lee said that some anomalies had been corrected and he thought that the Federal Council should appoint a subcommittee to go into the matter carefully and report again before the end of the meeting. It was not considered that this step could be undertaken successfully, and therefore Dr. A. E. Lee and Dr. J. G. Wagner were appointed a subcommittee to go through the lists and prepare a report for presentation at the next meeting of the Council.

A letter was received from the New South Wales Branch requesting that consideration should be given to urging the Minister for Health to have included in the *National Health Act* a definition of a "specialist". It was resolved that this should be done.

Reference was made to circular MB number 21, issued by the Commonwealth Department of Health. This circular had been sent to the Branches and to members of the Federal Council. It outlined the amendments to the *National Health Act* made by the 1956 amending Act.

A letter was received from the South Australian Branch in regard to the stabilization of fees. In this letter reference was made to the resolution adopted by the Federal Council at its meeting in March, 1953, in which emphasis was laid on the need for the stabilization of medical fees, especially in view of the fact that the success of the National Health Service would depend on such stabilization. The Federal Council had asked Branch Councils to give serious thought to the means of achieving this purpose. It was also pointed out at the meeting of the Federal Council held at Sydney in August, 1955, that the matter had again been considered. The Federal Council decided to review its previous decision of February, 1953, and came to the conclusion that the present economic status of doctors generally reaffirmed the Federal Council's previous resolution and asked Branch Councils to act in accordance therewith. The Council of the South Australian Branch reported that it had wholeheartedly cooperated with the Federal Council in giving effect to the recommendations, and no increases in private medical fees had taken place in South Australia since 1953 in spite of pressure from a section of members and several local associations. The South Australian Branch Council had learned with a considerable degree of surprise that both the Victorian and New South Wales Branches had recently increased their fees. The South Australian Branch Council thought that by allowing these increases to take place the Federal Council was acting against its own policy. The South Australian Branch Council suggested that the Federal Council might be willing to define its policy more clearly. It was pointed out in discussion that stabilization of fees did not necessarily mean fixation of fees. The action of the Victorian Branch had been determined as a result of an actuarial inquiry. A full discussion of this subject was held at the February, 1956, meeting of the Council. (See The Medical Journal of Australia, April 14, 1956, page 629.) In February, 1956, Dr. Robert Southby stated that the Victorian Branch had not increased its fees, but had stabilized them; Dr. J. G. Johnson also expressed the opinion that the fees had been stabilized on a fair basis. The General Secretary reported that he had received a communication from the Queensland Branch advising of a referendum taken on the question of fees. Dr. A. E. Lee had written that the Branch referendum had been carried out, 353 replies being received from 1168 members. Members had been informed that the Council was of the opinion that fair and reasonable fees would be: consultation in the surgery, 17s. 6d., visits to the home, 25s.

A letter was received from the Queensland Branch stating that increasing medical costs, owing to inflationary pressure, were creating such a disparity between medical fees and the benefit available to the patient that the success of the scheme was likely to be jeopardized. The Queensland Branch thought that the Commonwealth Government and registered organizations should be urged to increase the combined benefit, either by an increase in the Commonwealth benefits or by a loosening of the rigid linkage at present existing between the Commonwealth and Fund benefits, so that the latter could be increased. The General Secretary said that the matter had been referred to the Branches and replies had been received. After discussion the Federal Council resolved that the Commonwealth Government and registered medical benefits organizations should be urged to increase the combined medical benefit payable to contributors incurring medical expenses in respect of a professional service as defined in the *National Health Act*, and that this should be done either by an increase in the Commonwealth benefit or by a loosening of the rigid links at present existing between the Commonwealth and Fund benefits, so that the latter benefits might be increased.

The General Secretary reported that he had received from the Director-General of Health copies of the Bulletin of Statistics of Medical and Hospital Benefits for the six months ended September 30, 1956. Copies had been sent to the members of the Branch Councils.

Medical Services Committees of Inquiry.

The General Secretary reported that he had received from the Minister for Health a notification of the appointment of Dr. A. J. Murray to the Federal Services Committee of Inquiry in the place of the late Sir Archibald Collins. The General Secretary also reported that he had received from the Minister for Health a notification of the appointment of Dr. H. H. Steward and Dr. D. N. Clement to the Medical Services Committee of Inquiry for the State of Western Australia to fill the vacancies caused by the death of Dr. H. J. Gray and the resignation owing to illness of Dr. F. W. Carter. The Director-General of Health had notified the General Secretary of the appointment of Dr. B. N. Adsett to the temporary vacancy on the Medical Services Committee of Inquiry for the State of Queensland resulting from the absence overseas of Dr. H. W. Horn.

The General Secretary reported that he had received from the Minister for Health a letter dated February 22, 1956, stating that in the previous year Sir Earle Page, his predecessor, had approved of the suspension for a period of twelve months of a medical practitioner's authority to write prescriptions in accordance with Section 88 of the *National Health Act*. Following on publication in the *Commonwealth of Australia Gazette* of the notice of the suspension, the Medical Board in the State concerned had asked that there be made available to it details of the charges involved and the findings of the Committee of Inquiry. The Minister added that consideration was being given to meeting the State Medical Board's request by agreeing to supply to the relevant State Medical Registration authority a very brief statement couched in general terms (for example, excessive attendance, improperly charging pensioners for pensioner medical benefits *et cetera*) of the nature of the referred matter in relation to which the action was taken, but not a copy of the Committee's report of transcript of evidence. The information would be supplied in confidence and only in cases in which, under Section 134A of the *National Health Act*, notice of action taken against a medical practitioner was published in the *Commonwealth of Australia Gazette*. Crown Law advice was that action on the foregoing lines would be permissible. However, before arriving at a conclusion which would establish a policy on such matters, the Minister stated that he would appreciate the views of the Federal Council on the proposal. The General Secretary reported that the matter had been referred to the Branches and that they had approved. After discussion the Federal Council adopted the following resolution, based on the reply from the Victorian Branch Council:

> That the Minister for Health be informed that the Federal Council approves of the request of the Minister for Health that information be furnished to Medical Boards where notice of action taken against a medical practitioner was published in the *Commonwealth of Australia Gazette*, provided that such information was forwarded only at the specific request of the Medical Boards.

A communication was received from the Minister for Health advising that it was not possible to reimburse medical practitioners who had been called to appear before Committees of Inquiry and who had been completely exonerated. The letter had been sent to the Branches. The Western Australian Branch had suggested that the Minister for Health should be asked to set forth the reasons why it was not possible to reimburse the medical practitioners referred to. No action was taken in the matter.

It was noted that Dr. Keith Reye, of Gin Gin, Queensland, and Dr. N. L. Hall, of Ascot, Queensland, had been reprimanded under Section 134A of the *National Health Act*.

National Health Service Bulletins.

The General Secretary reported that National Health Service Bulletins numbers 1 to 9 inclusive had been received and that copies had been sent to the members of the Federal Council.

Payment of Medical Members of Advisory Committees.

A letter was received from the Minister for Health advising that a committee of Cabinet had decided that at the present time no support could be given to any request for an increase in remuneration of allowances of members of committees, boards, *et cetera*.

Vaccination Against Poliomyelitis.

A letter was received from the New South Wales Branch reporting that a communication had been received from the Director-General of Public Health of New South Wales stating that an indemnity had been provided covering any action for damages against a medical practitioner taking part in the Salk mass immunization campaign. The letter had been sent to the other Branches for their information.

A further letter was received from the New South Wales Branch in which the use of five cubic centimetre syringes for the Salk immunization vaccine was discussed. It was pointed out that it was not possible with a five cubic centimetre syringe to give an accurate dose of 0·5 cubic centimetre. Each syringeful contained over ten injections. The New South Wales Branch held that in a mass campaign where large numbers of children were being vaccinated in a short time, accurate doses should be given. The New South Wales Branch Council recommended that syringes to be used in a poliomyelitis immunization campaign should not exceed two cubic centimetres capacity. The New South Wales Branch asked the Federal Council to give consideration to the matter. In the discussion it was clear that the other Branches upheld the New South Wales Branch contention. However, in some places two cubic centimetre syringes were used. In the discussion Dr. Edgar Thomson pointed out that though a fresh needle was used for every child it was theoretically possible for an infection resulting in hepatitis to be transmitted. That no cases had been reported was of no significance. The Federal Council resolved that the Minister for Health should be informed that the Federal Council was of the opinion that syringes used in the Salk mass immunization campaign should not exceed two cubic centimetres capacity.

In the New South Wales Branch letter another matter was mentioned. This concerned the Poliomyelitis Surveillance Form, which had been sent to all practitioners in New South Wales by the Director-General of Public Health, and apparently to all practitioners in other States. There was a covering letter. In the covering letter a request was made that when a patient suffering from poliomyelitis had been vaccinated against this disease within thirty days of its onset, the practitioner should forward a specimen of blood and a portion of the patient's first stool to the Director of the Commonwealth Serum Laboratories, Parkville, N.2, Victoria. No mention was made in the form of any payment to be made to the medical attendant for the expense in forwarding specimens, nor was any payment for the completion of the surveillance form suggested. The New South Wales Branch Council asked the Federal Council to take this matter up with the Commonwealth Department of Health. In the discussion the view was expressed that many medical practitioners would not be familiar with the technique required for the transmission of a specimen of blood. Some representatives thought that the collection of the specimens referred to was a matter for the Commonwealth Health Department. The Federal Council resolved that the collection of specimens, completion of the surveillance form and payment for it should be a matter for discussion with the Commonwealth Department of Health.

Occupational Health in Australia.

The General Secretary reported that he had received from The Royal Australasian College of Physicians a comprehensive report of a committee set up by the College to deal with occupational health in Australia. He gave some details of the membership of the committee, and said that he had not had time to go into its conclusions, but would try to secure copies for the members of the Federal Council.

Television in Relation to Health Education.

A letter was received from the South Australian Branch, asking that the Federal Council should approve in principle a health session by television. Reference was made to television activities in Great Britain. The Federal Council resolved to approve in principle of a health session by television, and expressed the opinion that such a session should be planned as a national feature in Australia from its inception, even when only two States had television. The Federal Council decided that it was prepared to nominate doctors to serve on a supervisory and planning committee appointed by the Australian Broadcasting Commission. It further resolved that an immediate approach should be made to the Australian Broadcasting Commission to ensure that the British Medical Association was included in the planning and supervision of television sessions dealing with health education. It decided that the nomination of doctors to serve on such a supervisory and planning committee should be left in the hands of executive officers.

Medical Ethics.

The Consultation of Medical Practitioners with Non-Medical Persons.

The General Secretary reported that he had received from the Western Australian Branch Council a letter which stated that the attention of the Council had been drawn to the activities of a qualified biochemist (a graduate in science) who was practising on his own account in Perth. He was a skilled laboratory worker and a person for whom clinical pathologists had a high personal regard. The Branch Council was under the impression that this biochemist was under the direct supervision of a clinical pathologist, but it was learned that although the biochemist and the pathologist shared the same laboratory, there was no direct supervision exercised by the latter. The Branch Council had been asked to consider the following points: (*a*) the propriety of doctors consulting non-medical persons when clinical pathologists were available; (*b*) the attitude the Association should adopt if other science graduates commenced the same type of practice in Western Australia. The matter had been discussed at some length by the Branch Council and it had finally been decided to request that at the next Federal Council meeting the relationship between the medical profession and the biochemist be discussed. The General Secretary reported that the matter had been referred to the Branches and replies had been received. The Queensland Branch had replied that in the opinion of its Council the conduct of practice in clinical pathology by graduates in medical sciences not under the control of a legally qualified medical practitioner was undesirable. The reply of the New South Wales Branch took the form of a notice which appears from time to time in the Branch "Monthly Notice". It had been last printed on March 21, 1955. The notice is as follows:

> Medical practitioners are advised that the Council is of the opinion that a medical attendant should not refer a patient for radiological or pathological investigation to any person other than a legally qualified medical practitioner. For dental X-rays the patient may also be referred to a legally qualified dentist. A practitioner who consults with a radiographer or pathological technician is, in effect, covering an unqualified person and is therefore liable to have his name removed from the medical register.

The Victorian Branch replied that its Council saw no objection to medical practitioners using the services of a qualified biochemist. The South Australian Branch Council was of the opinion that it would be difficult to raise any objection to medical practitioners consulting non-medical personnel under the circumstances set forth in the correspondence, providing that the biochemist had the necessary training and experience and was a person of good repute. The Tasmanian Branch Council was of the opinion that provided a patient was referred by a doctor for report and that the non-medical person had no direct contact with the patient, no objection could be taken. After discussion, the Federal Council resolved that it was of the opinion that a medical practitioner requiring radiological or pathological investigations for patients should refer such patients to legally qualified medical practitioners practising in the appropriate specialty.

Rules Relating to the Appearance of Members of the Association in Television Programmes.

At its meeting in February, 1956, the Federal Council resolved that the views of the Branches should be sought in regard to the ethical rules which should be adopted relating to the appearance of members of the profession in television programmes. At a previous stage in its meeting the Federal Council had approved in principle a health session by television, and had stated that such a session should be planned as a national feature from its inception when only two States had television. It now considered the question of anonymity. The General Secretary said that this matter had been referred to the Branches and added that he had sent with the letter a copy of an extract from the annual report of the Parent Body for the year 1956. The Council of the Parent Body held that the present rule of anonymity as described in the Council's "Report on Indirect Methods of Advertising" should remain unaltered. It thought that this decision was in the best interests not only of the profession, but also of the public. By adhering to this rule, medical men and women would avoid offending their colleagues and inadvertently harming the public, and would thus uphold the status and dignity of a learned profession. The General Secretary read the replies that had been received from the Branches. The Queensland, New South Wales, South Australian and Western Australian Branches all held that anonymity should be preserved. The Tasmanian Branch had no comment to make. The Victorian Branch stated that for the time being Section 8 of Schedule C of the rules of the Branch in reference to broadcasting should be held to apply to appearances on television. Rule 8 provided, *inter alia*, that "permission to broadcast lectures on medical subjects must first be obtained from the Council". The Victorian Branch thought that the Federal Council should confer with the Australian Broadcasting Commission on the conditions which would govern televised broadcasts on medical subjects. The Federal Council resolved that, while recognizing that public education on selected health matters was eminently desirable, it was of the opinion that a close liaison should be established between the British Medical Association and the Australian Broadcasting Commission to control the selection of subjects and the scope of material presented to the public. It also resolved that practitioners approached to appear in such programmes, whether for "sound" or "visual" broadcasting, should insist on anonymity as part of the contract.

Company Formation by Medical Practitioners.

The Federal Council had before it a copy of a legal opinion sent by the New South Wales Branch in regard to a scheme for the incorporation of a company to take over the conduct and practice of a medical practitioner. The General Secretary said that this had been referred to the Branches. It was pointed out that insufficient time had been given for a proper consideration of the matter, and it was therefore deferred to the next meeting.

The Federal Council Medical Monograph Fund.

The General Secretary reported that he had received from the Editor of The Medical Journal of Australia a monograph by Dr. Bryan H. Gandevia, of Victoria, entitled: "An Annotated Bibliography of the History of Medicine in Australia". He had read this monograph with interest, and agreed with the Editor that it should be submitted to the Trustees, Dr. W. F. Simmons and Dr. Angus Murray, for their approval. The Trustees had thought that the monograph should be submitted to assessors. It was therefore sent for an opinion to Dr. K. S. Macarthur Brown, of Sydney, and Dr. H. Boyd Graham, of Melbourne. Both had been enthusiastic regarding the value of the contribution and recommended its acceptance as a Federal Council monograph. The Federal Council resolved to accept the decision of the assessors and agreed that the monograph should be published.

The General Secretary said that owing to the death of Sir Archibald Collins it would be necessary to amend the Trust Deed of the Fund and to affix the seal to the amended Deed. The Federal Council resolved to appoint Dr. R. H. Macdonald as Trustee of the Fund in place of the late Sir Archibald Collins.

Public Relations.

The General Secretary pointed out that the Federal Council had from year to year reappointed its Publicity Committee. He asked whether the Council thought it was necessary to continue to do this. After discussion the Federal Council agreed that it was not necessary at present to have a Publicity Committee and no committee was therefore appointed.

Australian Post-Graduate Federation in Medicine.

The General Secretary reported that he had received a notice of, and subsequently minutes of, the general meeting of the Australian Post-Graduate Federation in Medicine held in Melbourne on March 15, 1956. He had also received copies of the minutes of the meetings of the Executive Committee of the Federation subsequently held. He had received a notice that the annual meeting of the Federation would be held at Melbourne on October 9, 1956.

British Medical Association.

The General Secretary reported that he had received from Dr. H. W. Horn a report of the annual meeting of the Association held at Brighton, England, from July 5 to 13, 1956. It was resolved that Dr. Horn should be thanked for his report.

The General Secretary reported that he had received from the Chairman of the Committee of Management of the Empire Medical Advisory Bureau a letter expressing the gratification of the Committee at the resolution unanimously adopted at the Commonwealth Medical Conference at Toronto, held on June 14 to 16, 1955, in which appreciation of the assistance rendered by the Bureau to students from Commonwealth countries was expressed.

British Commonwealth Medical Conference.

The Federal Council discussed the financing of the British Commonwealth Medical Conference. It resolved to recommend that the allocation of the cost of holding the British Commonwealth Medical Conference should be reviewed; it thought that the allocation should have a closer relationship to the number of members of the constituent member associations.

It was noted that the Fifth Conference was to be held in London in 1957. The Federal Council resolved that Dr. H. C. Colville should be appointed representative of the Federal Council to attend on that occasion.

The Federal Council discussed subjects which might be suggested to the British Commonwealth Medical Conference for discussion at future conferences: (*a*) "The Supply of Medical Practitioners in the British Commonwealth"; (*b*) "National Health Programmes in Commonwealth Countries"; (*c*) "Reciprocity of Medical Registration between Commonwealth Countries"; (*d*) "Post-graduate Facilities in Commonwealth Countries"; (*e*) "The Average Remuneration of Medical Practitioners in Commonwealth Countries"; (*f*) "The Incidence of Infectious Disease in Commonwealth Countries"; (*g*) "Problems of Nutrition in Countries of the Commonwealth". The view was expressed that if such subjects were included in the agenda of conferences they might be of more practical use.

National Health and Medical Research Council.

Reference was made to the forty-first session of the National Health and Medical Research Council, held at Sydney on May 24, 1956. The General Secretary said that he had received the usual letter from Dr. W. F. Simmons, the Federal Council's representative, inquiring whether the Federal Council or the Branches desired any items to be placed on the agenda. He also stated that Dr. Simmons's report of the session had been received. The Federal Council resolved to thank Dr. Simmons for his report.

At its meeting in February, 1956, the Federal Council resolved to make another approach to the Federal Government and to impress upon it the need for an increased grant for medical research. Dr. Simmons explained that the representations had not met with success. He pointed out that the Commonwealth Scientific and Industrial Research Organization received a grant of £4,000,000 per year, and the National Health and Medical Research Council received only £150,000. He pointed out also that he had often met the statement that research was carried out at the Australian National University, Canberra, and that this offset some of the demands of the National Health and Medical Research Council. The New South Wales Branch sent a communication requesting that exception should be taken to the submission of a representative of the Treasury that in considering grants for medical research regard had to be taken of the fact that many students were receiving financial assistance to enable them to enter the Faculty of Medicine in Australian universities. The New South Wales Branch pointed out that this had nothing whatever to do with medical research. The Federal Council adopted a resolution in the terms of the New South Wales letter.

COMMONWEALTH DEPARTMENT OF HEALTH.

Pethidine.

Reference was made to the increasing use of pethidine by the medical profession. It was stated that pethidine was now the drug most commonly used for addiction. Attempts to deal with the problem had been initiated by the Commonwealth Department of Health. A special joint committee had been appointed and the Federal Council's representatives on the committee were Dr. A. J. Murray and Dr. A. E. Morrow, both of New South Wales. A survey of the use of pethidine had been made and the committee thought that practitioners who used the drug most extensively should be asked why they prescribed it. Before it did this, however, the committee sought the views of the Federal Council in regard to its advisability. The President remarked that increased consumption of the drug did not necessarily mean increased addiction. After further discussion the Federal Council resolved that the letter drafted to be sent to the prescribers of pethidine should be approved.

Heroin.

At its meeting in February, 1956, the Federal Council discussed the banning of heroin to which it had agreed on a previous occasion. The banning of heroin was the subject of a leading article in this journal in the issue of April 7, 1956. At its last meeting the Federal Council resolved to refer the matter to the Branches once more. The General Secretary reported that this had been done and that replies had been received. The Queensland Branch Council stated that after consulting members of the Branch, it saw no reason for altering its previous opinion that the ban on heroin should not exist. The New South Wales Branch replied that it had obtained the view of members by reference to local medical associations. It appeared that, generally speaking, members of the New South Wales Branch were against the banning of heroin. However, the Council felt that it would be wise to withhold a decision on the matter for a further period of twelve months, and recommended to the Federal Council that action along such lines should be taken. The Victorian Branch wrote that it had submitted a *questionnaire* to members and had asked them whether they considered that the use of heroin was essential in medical practice. The number who replied "yes" was 540. The number who replied "no" was 362. The number who were undecided was 78. The South Australian Branch Council wrote stating that it appeared that members of their Branch were strongly opposed to the present ban. *Questionnaires* had been posted to 783 members. The number who replied was 398. The voting was as follows: in favour of the ban, 76; opposed to the ban, 289; undecided, 53. The Western Australian Branch replied that a *questionnaire* had been sent to 588 members. Of the *questionnaires*, 158 were returned completed by members. Of this number, 106 were in favour and 45 against the continuance of the ban, and seven members indicated that they were undecided. The Western Australian Council concluded that the Branch, by a large majority, was in favour of the continuance of the ban. The Tasmanian Branch had replied that heroin should be made available as a restricted drug for use in obstetrical cases and that a strong move should be made to permit the drug to be supplied on a doctor's prescription. After discussion, the Federal Council resolved to inform the Commonwealth Government that after further consideration and consultation with the practising members of the profession throughout Australia it was of the opinion that the ban on heroin should be removed.

Fees Payable to Visiting Specialists of Tuberculosis Departments.

The General Secretary reported that he had received from the New South Wales Branch a statement regarding the fees paid to visiting specialists of tuberculosis departments. These were set out in tabular form and the Branch Council expressed the opinion that the rates were completely inadequate, and should be brought into line with the rates payable to visiting specialists at repatriation departments. The New South Wales Branch letter had been sent to the Branch Councils, and replies had been received. The Queensland Branch supported the views of the New South Wales Branch. The Victorian Branch Council had replied that, according to the New South Wales Branch letter, specialists visiting tuberculosis departments were underpaid. However, the Tuberculosis Branch of the Health Department in Victoria was already paying its specialists fees which were approximately the same as those of the Repatriation Department. The Victorian Branch sent details of these payments. The South Australian Branch replied that it endorsed the views expressed by New South Wales, and would support any action that might be taken to bring the fees into line with the sessional rates payable to visiting specialists at the Repatriation Department. The Western Australian Branch also supported the New South Wales Branch. It went further than this, however, and expressed the opinion that the rates for visiting specialists at repatriation hospitals were inadequate, in that the fee for each additional half-hour was only £1 1s., whereas in the opinion of the Western Australian Branch Council it should be £1 11s. 6d. for each additional half-hour. The Tasmanian Branch replied that in its opinion the fees for visiting specialists for tuberculosis departments should be the same as those operating with the Repatriation Department. The Federal Council adopted a resolution expressing the views of the New South Wales Branch.

Therapeutic Substances Act.

At its meeting in February, 1956, the Federal Council was asked to supply a panel of three names from which one would be chosen for appointment to the Therapeutic Substances Advisory Committee. The General Secretary said that the names of Dr. A. W. Morrow, Dr. Byron Stanton and Dr. R. Southby had been submitted to the Minister for Health. He had received a notification from the Minister, advising of the appointment of Dr. A. W. Morrow.

International and Overseas Congresses.

The General Secretary reported that he had received from the Director-General of Health notification of several international and overseas congresses. The Second International Congress on Medical Records was to be held at Washington, United States of America, on October 1 to 5, 1956. At the University of Paris, a course of lectures on allergic diseases would be given from October 15 to 25, 1956. A meeting of the Internation Professional Union of Gynæcologists and Obstetricians would be held at Madrid on September 28 and 29, 1956.

WORLD MEDICAL ASSOCIATION.

The General Secretary said that he had received a report from Dr. L. R. Mallen of the 26th Council Meeting of the World Medical Association, held at Cologne, Germany, from April 29 to May 4, 1956. Dr. Mallen was thanked for his report.

The General Secretary reported that he had received from the Secretary-General of the World Medical Association an announcement in connexion with the 27th Council Meeting of the World Medical Association, to be held at Havana, Cuba, and asking for the submission of items which might be placed on the agenda. He had communicated with the Branches, and the Victorian Branch had recommended that the subject of road accidents should be considered by the World Medical Association. The Federal Council resolved that this suggestion should be forwarded to the Secretary-General, and that road accidents should be considered from the preventive aspect. Reference was also made to the Tenth General Assembly of the World Medical Association, which would be held at Havana, Cuba, from October 9 to 15, 1956.

The Secretary-General's letters numbers 22 to 27, inclusive, were received.

The Federal Council considered a notice of motion by the American Medical Association to amend Article 5 (ii), namely: "Any other national or territorial medical association which is fully representative of the medical profession in its country or territory, or of the members of the medical profession of a recognized ethnic group in its country or territory", so that it would read: "Any national medical association which is fully representative of the medical profession in its country." Submitting the amendment, the American Medical Association pointed out that under the present article, there were at least three territories of the United States of America which could apply for membership of the World Medical Association. The Federal Council resolved to support the amendment suggested by the American Medical Association.

The General Secretary reported that he had sent to the Secretary-General a further report on the social services of Australia.

The General Secretary said that he had received from the Secretary-General a *questionnaire* on the desirability of the World Medical Association assuming "administrative responsibility" for awards for specific purposes. Dr. L. R. Mallen explained that the idea was that the World Medical Association, by the appointment of an expert subcommittee, should assume the responsibility for the administration of any international award. The Federal Council resolved that

it would support the assumption by the World Medical Association of the responsibility referred to, and thought that it should be done through expert subcommittees.

A letter was received from the Secretary-General of the World Medical Association advising of the holding of a Secretariat Liaison Conference at New York on October 19 and 20, 1956, and extending an invitation to official delegates of the Tenth General Assembly to attend that conference. It was noted that Dr. L. R. Mallen would represent Australia.

A cheque was received from the Queensland Branch Supporting Committee of the World Medical Association, amounting to £62 4s. The General Secretary said that so far the sum of £1868 8s. had been subscribed by the Australian Branches.

Reference was made to medical education, and first of all to the "Proceedings" of the First World Conference. The comments on the Proceedings from the Australian Branches of the British Medical Association had been collected and forwarded to the Secretary-General. In the second place, it was noted that the second Conference on Medical Education would deal with post-graduate education. A letter had been received from the Australian Post-Graduate Federation in Medicine, inquiring whether representatives would be sent from Australia to that conference. A reply had been sent in the affirmative.

The Council of the World Medical Association had expressed its appreciation for the continued support of the Federal Council in paying one Swiss franc per member as its subscription to the World Medical Association.

The General Secretary said that a *questionnaire* had been received from the Secretary-General in regard to the desirability of associate (individual) membership of the World Medical Association. Dr. L. R. Mallen spoke in favour of this idea, and explained that one of the aims was to increase the circulation of the *World Medical Journal*, and so stimulate wider interest in the affairs of the World Medical Association.

The venue for future meetings of the General Assembly and the Council was discussed. The Federal Council resolved to invite the World Medical Association to hold the 35th Council Meeting in Sydney in March, 1959.

REPATRIATION DEPARTMENT.

Medical Benefits for Widows, Widowed Mothers and Orphans of Deceased Ex-Servicemen, and Fees Payable to Local Medical Officers.

At previous meetings of the Federal Council the medical benefits for widows, widowed mothers and orphans of deceased ex-servicemen were discussed, together with the fees payable for local medical officers. At the meeting in February, 1956, the Federal Council resolved that it should make urgent and strong representations to the Chairman of the Repatriation Commission that the rates for attendance on widows, widowed mothers and orphans of deceased ex-servicemen should be 15s. per consultation and 17s. 6d. per visit, and £1 1s. for intravenous therapy. It also resolved that the proposed new scheme for medical service to widows, widowed mothers and orphans be approved, with the recommendation that it should be clearly indicated on voucher forms that only one voucher should be sent for each attendance. In regard to fees payable to local medical officers, the Federal Council resolved at the February meeting that urgent and strong representations should be made to the Chairman of the Repatriation Commission that the rates of payment of medical officers be 15s. for a surgery consultation and 17s. 6d. for a visit, and that it be impressed on him that there must be a differential rate between the fee for consultation and that for a visit. The President reported that in accordance with the resolution of the last meeting, he, Dr. Robert Southby, Dr. J. G. Johnson and the General Secretary had had a conference with the Chairman and members of the Repatriation Commission at Melbourne on April 24, 1956. He regretted to have to inform the members of the Federal Council that the meeting had been futile in the extreme, that the Chairman and members of the Repatriation Commission had been most unresponsive, and that the members of the deputation had been able to make no impression on them whatever. After discussion, the Federal Council resolved that in the event of the reply from the Repatriation Department to the Federal Council's request in regard to rates for attendance on widows, widowed mothers and orphans of deceased ex-servicemen being unfavourable, the Federal Council was of the opinion that the present capitation system should be continued. The matter was left in the hands of the executive officers.

A communication was received from the Repatriation Commission advising that as from January 1, 1956, specialist fees for consultation at rooms should be £4 4s., and for visits to the patient's home, £6 6s.

The General Secretary read a letter which he had received from the Chairman of the Repatriation Commission in regard to Forms 71 and 71A. The letter was portion of one which had been dispatched by Deputy Commissioners of Repatriation in each State to all local medical officers, and concerned the new procedure to be adopted in connexion with medical reports on treatment afforded to ex-service personnel. The main changes in procedure were the cancellation of Forms 71A, and, unless specifically requested by the Department, medical reports on Form 71 would be required from local medical officers only in the following instances: (*a*) first visit by patient after receipt of entitlement card (Forms 83A or 83AA); (*b*) where X-ray examination, pathological test, physiotherapy, surgical aid, admission to hospital, a specialist's opinion, operative treatment, or other procedure was recommended; (*c*) after a period of four months' continuous treatment when it had been necessary to see a patient several times a month and special treatment was required; (*d*) when repetition of an intramuscular and intravenous course of therapy had been necessary. The Commission thought that with the adoption of this procedure, a considerable reduction of clerical work by the local medical officer and the Repatriation Department would result. Thus, more expeditious action might be taken on behalf of the patient.

The General Secretary reported that he had received from the Tasmanian Branch Council a request that representation should be made to the Repatriation Commission that Form 63A should be printed in the form of an envelope, and that clinical reports should be made to fit that envelope. The request had been brought to the notice of the Repatriation Commission at the conference on April 24, and a decision in regard thereto was still awaited.

The General Secretary reported that he had received from the New South Wales Branch a letter requesting that the matter of fees payable to private medical practitioners for performing surgical operations on ex-service personnel entitled to repatriation benefits should be taken up with the Repatriation Commission. The Chairman had been asked that rates for operation on ex-service personnel by private medical practitioners should be drawn up. So far, no reply had been received.

DEPARTMENT OF SOCIAL SERVICES.

The General Secretary reported that he had received from the Director-General of Social Services a letter advising that Dr. Howard Rusk was to visit Australia from November 8 to 18 at the request of the Commonwealth Government. The Director-General had wished to know whether it would be possible to arrange for a meeting of practitioners in New South Wales to be addressed by Dr. Rusk. The General Secretary replied that the medical profession of Australia would appreciate the visit of Dr. Howard Rusk, and added that arrangements had been made for the holding of a meeting in Sydney.

The General Secretary reported that the South Australian Branch had written recommending that steps should be taken with a view to seeing that the widow of a deceased pensioner was entitled to medical service under the Pensioner Medical Service until such time as her eligibility to receive the service under her own right was established. The matter was brought under the notice of the Director-General of Social Services, Canberra, who advised that it was a matter for the Department of Health, and he had accordingly referred it to the Director-General of Health. The Director-General of Health had desired to know whether the Federal Council had any objection to the suggestion of the South Australian Branch. The Federal Council decided to support the South Australian Branch suggestion.

A letter was received from the New South Wales Branch, asking that representation should be made to the Commonwealth Government that a private practitioner examining a person seeking entitlement to a pension should be requested to make a medical report and not a recommendation in regard to whether the person should receive a pension or not. The General Secretary said that the matter had been submitted to the Branches, and replies had been received. The South Australian Branch did not support the New South Wales suggestion. The Victorian Branch sent a long reply, but left the matter in the hands of its delegates. The Queensland Branch disapproved, and expressed the opinion that the decision on the granting of a pension

should be made by a panel of medical practitioners. The Western Australian Branch agreed with New South Wales, and the Tasmanian Branch also supported New South Wales. In the discussion, it was pointed out that if the New South Wales Branch's suggestion was carried out, the possible result might be that a non-medical person would decide on the granting of a pension. Dr. A. J. Murray moved, and Dr. R. H. Macdonald seconded, a motion drafted on the lines of the New South Wales letter. Dr. Colin Anderson said that if it was true, as was suggested in the New South Wales Branch letter, that far too many people in the community were drawing invalid pensions, and that many of them were capable and were often in active employment, and that some examiners were either not conscientious or were badly misled by the patient's story, what was needed was education of the medical profession itself. The motion was put to the meeting and lost.

The General Secretary read a letter which he had received from the Director-General of the Department of Social Services, in regard to fees for the examination of applicants for invalid pensions. The Federal Council had written to the Director-General on February 16, 1956. The Director-General stated that the Treasury had agreed to an increase in the fee payable to Commonwealth medical referees. Instead of the separate fees of £1 1s. and £1 5s. respectively for examinations at or away from the doctor's rooms, a flat rate fee of £1 11s. 6d. would be paid for each examination, irrespective of where it was conducted. For examinations conducted away from the doctor's rooms, mileage allowance of 2s. 6d. per half-mile or part thereof over two miles one way, day or night, would be paid, provided a special visit was necessary. The new fee was to apply to all examinations conducted on and subsequent to June 1, 1956. After discussion, the Federal Council decided that a letter should be written to the Director-General of Social Services, advising that, in its opinion, the fee for examination of pensioners should be increased from £1 11s. 6d. to £2 2s. for each examination, whether at the surgery or home, *plus* mileage allowance of 2s. 6d. per half-mile beyond two miles one way, when the examination was conducted away from the doctor's rooms.

At its meeting in February, 1956, the Federal Council resolved that in its opinion the fees payable to general practitioners for services rendered on behalf of the Department of Social Services should be £3 3s. for the first hour and £1 1s. for each subsequent half-hour or part thereof. This had been sent to the Director-General of Social Services, who had replied advising that the Treasurer had approved of the fees payable to general practitioners on a sessional basis being increased to £2 12s. 6d. for the first hour, together with 15s. 9d. for each additional half-hour of the session. After discussion, the Federal Council resolved that further strong representations should be made to the Department of Social Services that the fees payable to general practitioners rendered on behalf of the Department should be £3 3s. for the first hour and £1 1s. for each subsequent half-hour or part thereof.

Rehabilitation Services.

At its meeting in February, 1956, the Federal Council resolved that the Branches should be asked to furnish to the Federal Council information regarding rehabilitation services in their respective States, and that they should make suggestions for their improvement. During the discussion, Dr. Colin Anderson referred with appreciation to the article by Dr. Dag Knutson, which was presented to the World Medical Association at its last General Assembly, and which was published in The Medical Journal of Australia of June 30, 1956. The opinion was expressed that the Branches had not had sufficient time to prepare adequate reports, and discussion on the subject was deferred till the next meeting.

Applications for the Position of Medical Officer in Antarctica.

The General Secretary reported that he had received from the Queensland Branch a letter in regard to an advertisement inviting applications for the position of medical officers at Macquarie Island and Mawson (Antarctica) during 1957. Among the qualifications required was the fact that applicants should possess at least one year's post-graduate hospital experience in addition to normal medical qualifications, that surgical experience was essential, and that the candidate should undergo an appendicectomy prior to embarkation. The Queensland Branch thought that a protest should be lodged against the requirement that the appointee should have a compulsory appendicectomy before embarkation. The matter had been referred to the Branches, and replies had been received. The New South Wales, the Victorian and the Tasmanian Branches did not support the Queensland point of view. The South Australian Branch thought that the provision was not unreasonable, and the Western Australian Branch expressed the view that the advertisement might have been phrased in more acceptable terms. After discussion the letter from the Queensland Branch was received.

Australian Road Safety Council.

At its meeting in February, 1956, the Federal Council discussed a communication received from the Australian Road Safety Council in regard to the voluntary use of chemical tests for intoxication with alcohol. On that occasion, the Federal Council resolved to inform the Australian Road Safety Council that it was of the opinion that arrangements should be made for increased facilities for the carrying out of blood tests for alcohol. The General Secretary said that he had received a letter from the Chairman of the Australian Road Safety Council advising of the formation of a Medical Legal Committee and a Public Relations Committee and inquiring if arrangements could be made for Dr. F. S. Hansman to attend as representative of the Federal Council. Dr. Hansman had been appointed as Federal Council representative, and he had accepted the appointment. The General Secretary read a letter from Dr. Hansman, setting out some matters which had been approved by the Australian Road Safety Council in principle, and which it thought should be referred to the Federal Council for its consideration. These included: (*a*) a *pro forma* for the medical examination; (*b*) fees to be paid to a doctor called to make an examination (here Dr. Hansman suggested that the fee should include the taking of a blood sample and should take into consideration variations according to the time of day, week-end, holidays *et cetera*); (*c*) the payment of fees for doctors for attendance at court; (*d*) payment of fees to experts called to interpret results; (*e*) the provision of panels of doctors to be available for call during week-ends and on holidays. During the course of another letter, Dr. Hansman had referred to the definition of "driving under the influence of intoxicating drink". He referred to a case which had been recorded in America, and which established three conditions when a driver could be said to be "under the influence"; (*a*) all the well-known and easily recognized symptoms of intoxication; (*b*) any abnormal mental or physical condition as a result of imbibing alcohol; (*c*) any lessening of a driver's "ability" in the slightest degree by the use of such liquor. It had been stated that "ability" was used in the sense of mental or physical ability and not capacity to drive. In a third letter, dated July 31, 1956, Dr. Hansman had written to the General Secretary and had stated that the tide was flowing towards government recognition of the test. The General Secretary presented the Federal Council with a *pro forma* which had been drawn up by himself, and which asked for such details as name, address and occupation of the person examined, including the history, the result of examination and a certificate setting out the opinion of the examiner. Dr. E. F. Thomson remarked that the test could be made to state the level of alcohol in the blood, but it was necessary to keep in mind the accuracy of the test and the method of its interpretation. Dr. L. R. Mallen reminded members of the Federal Council that experts were agreed that the most important part of an investigation was the clinical findings on examination of the person concerned. The *pro forma* submitted was approved as a model, but the certificate at its conclusion was omitted. The Federal Council resolved that the fee for examination should be £3 3s., with an additional £2 2s. when the examination was carried out between the hours of 8 p.m. and 8 a.m., and between the hours of 1 p.m. on Saturday and 8 a.m. on Monday, and on public holidays. The Federal Council thought that the fee to be paid to a medical practitioner called in to give expert evidence should be £10 10s. The Federal Council also recommended that medical practitioners in each State should be invited to nominate to serve on panels to be available for the examination of persons charged with drunken driving.

The Superannuation of Self-Employed Persons.

At several previous meetings of the Federal Council, the superannuation of self-employed persons was discussed. At the February, 1956, meeting, the General Secretary reported that since the previous meeting a reply had been received from the Acting Treasurer that the Government considered that it would not be in the best interests of the economy to give tax reductions or concessions at the present time, but that the matter would be given further consideration when taxation measures again came under review. The

Federal Council had before it copies of letters written by the Treasurer to the Law Council of Australia and to the Institute of Chartered Accountants in Australia. (These bodies are among those associated with the Federal Council in its efforts to secure the superannuation of self-employed persons.) In one of these letters, the Treasurer stated that the basic principle underlying the law in the United Kingdom so far as it related to retirement benefits was that, within defined limits, income tax relief was granted in respect of the amount which it cost the taxpayer to provide for superannuation during the years when he practised his profession or carried on business or was engaged in employment. In retirement, the annuities of pensioners became subject to income tax, and if the income of the annuitant or pensioner was sufficiently high, surtax was also payable on the receipt. The Treasurer went on to state that the recent legislation in the United Kingdom for relief to self-employed persons fitted into the general pattern of previously existing legislation in Great Britain in relation to superannuation funds for employees. In Australia, there was an allowance for the deduction of contributions to superannuation funds for employees, even although the retirement allowance was taken in the form of a lump sum payment to the employee. Of that lump sum, 95% was completely free from Australian tax. Correspondingly, in the case of an approved superannuation fund for self-employed taxpayers in Australia, deductibility of contributions to the fund and the exemption from tax of the income of the fund were not subject to any requirement as to the nature of the payment out of the fund on retirement of the self-employed contributor. The Treasurer observed that Australian taxpayers were not taking advantage of the full concession of £200 annually for life assurance, superannuation *et cetera*. For example, in the income group of £2000 to £5000 *per annum*, the average amount paid in premiums on life assurance and contributions to superannuation funds was as low as £75. The Treasurer's conclusion after careful study of the matter was that while the legislative action taken recently in the United Kingdom might be particularly well suited to the United Kingdom system, it was not so readily adapted to the Australian income tax system. The Federal Council had before it and approved a reply sent to the Treasurer by the Secretary of the Law Council of Australia. In the course of this reply, it was pointed out that the fact that the average amount of deduction under Section 82H in the income group £2000 to £5000 *per annum* was as low as £75 was not surprising, and merely confirmed what had always been contended, namely, that in the early stages of his professional career, a professional man could not afford to set aside even £200 *per annum* for that purpose, whilst when his practice had grown and his private and domestic responsibilities had become less, his age and possibly his medical classification prevented his obtaining any worthwhile return from investment in life assurance. The remedy lay in a superannuation fund to which he could contribute a fixed percentage of his annual income, and eventually receive a lump sum or an annuity calculated actuarially with reference to the period from the date of each payment until he reached the retiring age, or more ideally, a combination of such a fund and life assurance. It was further stated that justice as between employees and self-employed taxpayers required the increase of the maximum under Section 82H, and it was respectfully suggested that that maximum should be increased to £400 *per annum*. The applicants in this matter realized that there would be some immediate loss of revenue, but they suggested that this loss would be extremely small in proportion to the total revenue from income tax; although no actual figures were available, it seemed clear that the vast majority of taxpayers comprised wage-earners and companies. The number of self-employed taxpayers was surely comparatively small, and for the most part their incomes were in the lower and middle income groups. Moreover, from the long-range point of view, some of this loss would eventually be recovered when the amounts so set aside matured.

Australian Social Welfare Council.

The General Secretary reported that the inaugural meeting of the Australian Social Welfare Council had been held at Sydney on April 11, 1956. He had received a copy of the minutes. Dr. Colin Anderson remarked that the General Secretary of the Federal Council had done most important basic work in connexion with that body. The Federal Council resolved that the General Secretary should be thanked for his work in connexion with the foundation of the Australian Social Welfare Council.

The Australian Advisory Council for the Physically Handicapped.

The General Secretary reported that he had received a letter from the Honorary Secretary-Treasurer of the Australian Advisory Council for the Physically Handicapped, asking for nominations for the Albert Lasker Awards, which had been established for outstanding international achievement in the field of services for the physically disabled. It was explained that the awards in question recognized individual and group accomplishments of international significance and emphasized the importance of developing improved services for the disabled persons of the world. They were conferred every third year by the Lasker Foundation through the Congresses of the International Society, and would be presented in 1957 at the Seventh World Congress, to be held in London. The General Secretary said that he had sent this request on to the Branches, and had received from the Victorian Branch the nomination of Dr. D. O. Longmuir, who was adviser on rehabilitation to the Victorian Government.

Salaried Medical Officers.

A letter had been received from the Western Australian Branch, asking that the Federal Council should enter an emphatic protest against the employment for profit of doctors by lay bodies, such as hospitals. It was explained that a doctor was sometimes paid a salary, private and intermediate patients of the hospital were charged for work carried out by the doctor, and the whole of the fee was retained by the institution. The Federal Council resolved that salaried officers should be paid a salary for public work, and that fees for private work should be a matter of arrangement between the salaried specialists and the patient, the specialist to have the right to use the institution's equipment and staff, for which service he should pay the institution an appropriate amount.

A communication was received from the Repatriation Department Medical Officers' Association in regard to two matters. The first referred to the disabilities under which medical officers of the Repatriation Department were working. It was pointed out that the medical officers of the department had not received the increases in salary that had been expected as a result of their appeal to the Arbitration Court. Further consideration of that matter was deferred by the Federal Council. The Federal Council also informed the Repatriation Department Medical Officers' Association that it was in sympathy with the request that the medical services of the department should be placed under medical control, and that further representations should be made in the matter at an appropriate time.

It was pointed out in discussion that the Federal Council had on previous occasions advocated the placing of the administration of repatriation departments under medical control. A report had been drawn up many years previously by Sir Victor Hurley, Sir Roy Burston and Dr. K. Smith, and they had advocated medical control. The General Secretary pointed out that it would never be possible to convince the Public Service Board that a medical man could be a good administrator.

The second matter referred to by the Medical Officers' Association had to do with appeals against provisional promotions. The Federal Council determined here to support the request of the Repatriation Department Medical Officers' Association that chairmen of Repatriation Promotion Appeals Committees should be members of the medical profession.

At its meeting in February, 1956, the Federal Council resolved that the directors of the Australasian Medical Publishing Company, Limited, should be informed that in the opinion of the Federal Council advertisements submitted for insertion in The Medical Journal of Australia which specified a differential rate of pay for male and female doctors should be refused. Dr. A. E. Lee said that at the meeting of directors held on August 26 the matter had been discussed by the directors. The directors had pointed out that in some instances differential rates were laid down by State law, and that to refuse advertisements in such circumstances would be useless. The directors had resolved that the Editor of the journal should continue to accept or reject advertisements on the advice of the Council of the Branch concerned.

Ships' Surgeons.

The General Secretary reported that he had received a letter from the Queensland Branch, requesting the Federal Council to investigate conditions of service of ships' surgeons. The General Secretary had had an interview with an officer

of the Australasian Steamship Owners' Federation, and had pointed out to him that the salaries and conditions of service of ships' surgeons were grossly inadequate. He had impressed on this officer the importance of the payment of a reasonable salary to a ship's surgeon, and had suggested a minimum of £1500 *per annum*. He had hopes that the Federation might see the light in the matter. The Federal Council resolved to leave it in the hands of the General Secretary.

The Limbless Soldiers' Association of Australia.

The General Secretary reported that the President had been invited by the President of the Limbless Soldiers' Association to join a deputation, consisting of representatives of the Limbless Soldiers' Association, the Canteens Trust Fund and the Returned Sailors, Soldiers and Airmen's Imperial League of Australia, to the Prime Minister to discuss the subject of Dr. K. C. Bradley's report on phantom limb pain and the modernization of artificial limbs for ex-servicemen and also civilians. The limbs supplied to ex-servicemen compared unfavourably with those for sale on the open market.

Unfortunately, the President was unable to accompany the deputation, but he informed the President of the Limbless Soldiers' Association that the Federal Council fully supported the objects of the deputation.

The President pointed out that the position was not simple—what was needed was more skilled workers.

In reply to a letter from the General Secretary inquiring what the present position was in regard to the representations of the deputation, the Acting Prime Minister said that the Government was most sympathetic with the aims of the deputation and that a good deal of preparatory investigation had been undertaken by the officers of the Departments of Repatriation and Social Services. It was resolved that if a further approach was made to the Prime Minister, the Federal Council should support it.

Armed Services.

As the result of a letter received from the Queensland Branch, the Federal Council resolved that the departments controlling the Armed Services should be approached with a request that services rendered by civil medical practitioners should be paid at the current rates for comparable services in private practice in the community. The South Australian Branch had also sent a letter dealing with the same subject.

The Federal Council also resolved that the rates of pay of medical practitioners for attendance as members of medical boards should be at the rate of £3 3s. for the first hour and £1 1s. for each subsequent hour or part thereof.

At its meeting in February, 1956, the Federal Council appointed Dr. Robert Southby and Dr. J. G. Johnson a sub-committee to prepare a detailed plan for improving the conditions of service of medical officers in the armed services. The report of the committee was before the Federal Council. The report was discussed, and one clause was added to it. The completed document is as follows:

> The Sub-committee (Dr. Robert Southby and Dr. J. Gavin Johnson) has considered various aspects of the problem referred in the terms of reference and is of the opinion that the Federal Council should present to the Prime Minister an urgent request that the Government immediately institute measures to increase the personnel, and thereby improve the efficiency, of the medical services to the Armed Forces, which at the present time are very considerably below normal establishment.
>
> It is suggested that the following measures would assist in implementing this request:
>
> The best medical service possible must be available for the Armed Forces. It is therefore paramount that the highest ethical traditions of the profession must be maintained: this will keep the morale high.
>
> The attractiveness of career appointments must be improved, thereby increasing the efficiency of the medical care of the service personnel (and their dependants).
>
> Interest in the medical services should be fostered in schools, universities, recent graduates and hospital resident medical staffs. In this direction subsidy of undergraduates in their later years is very valuable.
>
> Conditions of service and rates of remuneration must compare favourably with other departments and types of medical practice, generally, professionally, and financially, in order to attract young graduates.
>
> Pensions should be no less than those applying in other departments. These should take into consideration pay for rank and margins, and for career officers.
>
> Ante-dating appointments, up to seven years, to allow for the period of training (university course and hospital residency).
>
> Voluntary retirement after twenty years or more of service with equal opportunities for appointments and pensions compared with other departments on such retirement.
>
> Marginal pay should increase, not decrease, with promotion to a higher rank, and such promotion should not divorce an officer from professional duties, making him an administrator as at present.
>
> Allowance should be made in the establishment for a pool of medical officers to allow for leave and post-graduate training and thus avoid twenty-four hours a day service for three hundred and sixty-five days a year.
>
> Stabilizing the length of tours of duty (postings) in order to reduce frequency and suddenness of transfers—three to four year periods.
>
> Consolidation of medical activities so as to utilize more effectively the medical personnel already in the service.
>
> Closer cooperation between civil and service doctors, and the use of civilian doctors in service industrial activities.
>
> There should be reasonable prospect of promotion with accompanying increase of pay: this should also apply to reserve officers.
>
> Nevertheless, it is realized that much depends on the individual officer as regards his interest, energy, and initiative.
>
> That much greater emphasis should be laid on the need for adequate facilities for clinical training, especially in service establishments.
>
> It is further suggested that the British Medical Association would be prepared to assist the Government in every way possible.
>
> (Sgd.) Robert Southby.
> J. Gavin Johnson.
>
> August 13th, 1956.

It was decided to forward a copy of the report to the Prime Minister accompanied by a request that he receive a deputation, led by the President, to discuss the matter.

Special Groups.

The Ophthalmological Society of Australia.

The General Secretary reported that he had received from the Council of the Ophthalmological Society of Australia (one of the special groups) a resolution carried by its Council at the annual meeting of the society held in July, 1956:

> The Council reaffirms its opinion that the employment of optometrists in public hospitals is not in the best interests of ophthalmology and that the employment of optometrists by ophthalmologists in private practice should not be countenanced.

The resolution was noted.

The Ophthalmological Society of Australia forwarded a copy of a resolution adopted at its annual meeting in July, 1956, to the effect that in order to promote more effective public relations for the Society, each State section was instructed to appoint from its members two public relations officers, one of whom should act as spokesman, provided that before making any public statement he conferred with his State chairman, and provided further that any such statement should be issued in the name of the Ophthalmological Society of Australia (British Medical Association). The Federal Council resolved that the Ophthalmological Society of Australia should be informed that in its opinion any publicity should be discussed with the Publicity Committee of the State Council of the British Medical Association before active steps were taken.

The Oto-Laryngological Society of Australia.

The Oto-Laryngological Society of Australia (a special group) forwarded a copy of correspondence between a member of the Society and a hearing aid distributor. The letter had to do with the testing of hearing acuity. The correspondence was noted.

WORKERS' COMPENSATION ACTS.

A letter was received from the South Australian Branch, referring to an extraordinary general meeting of the Branch which had been called to discuss and to obtain the opinion of members on the formation of clinics by insurance companies for the treatment (emergency or otherwise) of workers' compensation cases. The following resolution was adopted:

> This meeting of members of the South Australian Branch of the British Medical Association expresses its opposition to the establishment of insurance company controlled medical clinics. The consensus of opinion against the establishment of medical clinics by insurance companies was expressed in the strongest possible terms.

It was pointed out in the discussion that there was no reason why insurance companies should not carry out emergency treatment of injured workers, and also that they should be able, if they wished, to inspect the injury in order to assess the recovery of the worker. What was objected to was the continued after-treatment of the worker, who should be sent on to his usual medical attendant. Several representatives gave examples of what was happening in their States, and the Federal Council resolved that it disapproved of the staffing by members of the Association of a clinic established by an insurance company for any purpose other than emergency treatment and inspection of the injured worker. The Council also resolved that the resolution should be forwarded to the Branches for consideration and comment.

DEPARTMENT OF LABOUR AND NATIONAL SERVICE.

At its meeting in February, 1951, the Federal Council accepted certain rates of payment offered by the Department of Labour and National Service for the conducting of the ordinary examination of recruits for compulsory National Service. The General Secretary reported that he had received a request from the Victorian Branch that the amounts then accepted should be increased. The Federal Council discussed the matter and resolved to ask the Department of Labour and National Service that the rates of payment of medical practitioners for the conducting of the ordinary examination of recruits for compulsory National Service should be £3 3s. for the first hour and £1 1s. for each subsequent half-hour or part thereof.

DATE AND PLACE OF THE NEXT MEETING.

It was resolved that the place of the next ordinary meeting should be Sydney, and that the date should be left in the hands of the President.

ILLNESS OF DR. C. H. DICKSON.

The Federal Council resolved to extend its sympathy to Dr. C. H. Dickson in his illness, and to extend to him wishes for a speedy recovery.

VOTES OF THANKS.

A vote of thanks was extended to the Council of the Victorian Branch for its hospitality and for the use of the offices and also for affording the Federal Council the opportunity of presenting the Gold Medal of the British Medical Association in Australia to Dr. J. G. Hunter at the dinner given to members of the Federal Council on August 29, 1956.

A vote of thanks was extended to Dr. and Mrs. H. C. Colville, Dr. R. Southby and Dr. J. G. Johnson for their hospitality.

The Council thanked the President, Dr. H. C. Colville, for having presided at the meeting.

The Federal Council offered its thanks to Dr. J. G. Hunter and Miss H. Cameron for their services during the meeting.

Correspondence.

THE UPSURGE OF THE SAVAGE.

SIR: Albert Namatjira is said to be living in a humpy, but there is an aboriginal bachelor of arts who effortlessly resists the call of the tribe and quietly insists that we are not giving his people a chance equal to our own. He had the "advantage" of adoption by white parents in infancy. They loved and nurtured him as their own. He bred true to nurture.

The Jesuits knew about this centuries ago. One said: "Give me a child till he is seven. You can have the rest of his life."

Psychoanalysts know about it. One patient attended a Methodist church till the age of ten, then went through phases of atheism, evangelism, Presbyterianism and agnosticism. His analyst (himself once a devout Methodist) said to him: "Once a Methodist, always a Methodist." We seek our mates in the image of our parent of the opposite sex, so they say.

Bird-lovers know about this principle. Once a budgerigar acquires its wild libido-objects, it is wasting time to try and train it to talk and be loyal to a human foster-parent.

It seems there is an unjust tradition, fostered sometimes by medical men, to separate nature and nurture into opposing camps, and to assume that genes for black skins go with genes for barbarity. I feel it is more likely that the "pre-teen" aboriginal girl of your editorial (September 1, 1956) was adopted, not just to fill a void of parental love, but also as a domestic help. In any case, she was not long treated as a white infant, or the "upsurge of the savage" in her would surely have taken a more "white-skinned" form, like rock-and-roll frenzies or buying lucky-numbered lottery tickets.

I feel, therefore, that your article misses the main point of education to prevent delinquency *et cetera*. We have to concentrate on pre-school social hygiene, which implies first and foremost the emotional hygiene of the family unit.

Yours, etc.,

DOUGLAS EVERINGHAM.

21 East Street,
Rockhampton,
Queensland.
September 4, 1956.

SIR: "The Upsurge of the Savage" (September 1, 1956) is very able writing, but the picture of the aboriginal as in "Jedda" is unfair to the aboriginal race. Much of the training to which you refer has little or no appeal to the aboriginal child, she has no real place in the family life, and she has little difficulty in realizing that the training is not primarily for her benefit.

But there can be successful upbringing of the native child. For twenty-six years I have studied closely the aboriginal race, have been in contact with the people in the primitive state, and during the past fifteen years aborigines have been full members of our house. They have had the same respect and discipline as our own children, and there have been no failures in after life. At present a full-blooded mother has been with us for six weeks waiting for her baby, which underwent a delicate brain operation in the Adelaide Children's Hospital. Later with her baby she will fly home to the Ernabella Mission to join her husband and two older children, but they will never become "verminous" or "unkempt"; yet the tribe consisted of naked nomads when I first met them in 1935.

The mental potential of the aborigines is equal to ours, and when these people get full respect and opportunity their practice will soon rise to our level. But until we drop every trace of condescension, until we meet aborigines at work and in play on equal terms, until we invite them to our homes, we are falling short of the complete social acceptance necessary for them to take their place happily and naturally in our community.

Australia's aborigines do not need our pity but our respect.

Yours, etc.,

CHARLES DUGUID.

175 North Terrace,
Adelaide,
South Australia.
September 9, 1956.

Naval, Military and Air Force.

APPOINTMENTS.

THE undermentioned appointments, changes *et cetera* have been promulgated in the *Commonwealth of Australia Gazette*, Number 51, of September 6, 1956.

AUSTRALIAN MILITARY FORCES.

Australian Regular Army.

Royal Australian Army Medical Corps.

2/40173 Captain H. T. Gage is transferred to the Reserve of Officers (Royal Australian Army Medical Corps (Medical)) (Eastern Command), 9th July, 1956.

Citizen Military Forces.

Northern Command.

Royal Australian Army Medical Corps (Medical).—1/39192 Honorary Captain H. A. Muir is appointed from the Reserve of Officers, and to be Captain (provisionally), 20th June, 1956.

Eastern Command.

Royal Australian Army Medical Corps (Medical).—2/127810 Captain E. G. Laver relinquishes the temporary rank of Major and is transferred to the Reserve of Officers (Royal Australian Army Medical Corps (Medical)) (Eastern Command), 16th May, 1956. 2/134180 Captain T. W. Edmeades is transferred to the Reserve of Officers (Royal Australian Army Medical Corps (Medical)) (Eastern Command), 25th May, 1956. The provisional apointment of 2/116143 Captain I. R. Vanderfield is terminated, 13th April, 1956. To be Captains (provisionally): 2/116143 Ian Roger Vanderfield, 14th April, 1956, and 2/134210 Vincent Joseph Adcock, 10th May, 1956.

Southern Command.

Royal Australian Army Medical Corps (Medical).—To be Temporary Major, 11th July, 1956: 3/157156 Captain R. M. Gray.

Western Command.

Royal Australian Army Medical Corps (Medical).—5/26398 Captain (provisionally) H. S. Cohen ceases to be seconded whilst in the United Kingdom, relinquishes the provisional rank of Captain, is transferred to the Reserve of Officers (Royal Australian Army Medical Corps (Medical)) (Western Command) and is granted the honorary rank of Captain, 7th June, 1956.

Reserve Citizen Military Forces.

Royal Australian Army Medical Corps.

Northern Command.—To be Honorary Captain, 18th June, 1956: Mervyn John Eadie.

Notice.

AUSTRALASIAN ASSOCIATION OF PSYCHIATRISTS.

THE clinical meeting of the New South Wales Branch of the Australasian Association of Psychiatrists, which was to have been held at Broughton Hall Psychiatric Clinic, Wharf Road, Leichhardt, at 7.30 p.m. on Thursday, October 11, 1956, has been postponed. It will now be held on Thursday, October 18, 1956. The hour and place of meeting are as before.

THE AUSTRALIAN ASSOCIATION OF PHYSICAL MEDICINE AND REHABILITATION.

THE eleventh annual meeting of the Australian Association of Physical Medicine and Rehabilitation will be held on November 12, 13 and 14, 1956. The Department of Social Services has arranged for Dr. Howard Rusk to give a lecture before the Association. Dr. Rusk is Director of Rehabilitation and Physical Medicine, New York University. Bellevue Medical Centre, Chairman of the Department of Rehabilitation, New York University, President of the International Society for Welfare of Cripples, and consultant in rehabilitation to the United Nations. During the 1939-1945 War he introduced and developed rehabilitation in the United States Army, and since the war in the Veterans Administration. Dr. Rusk's lecture will be delivered on Monday, November 12, 1956, at 8 p.m., in the Public Lecture Hall, University of Melbourne. All members of the medical profession are invited to be present.

MEDICAL BENEFITS FUND OF AUSTRALIA.

BALLOTS were recently conducted to elect medical members to fill vacancies on the State executive committees in New

DISEASES NOTIFIED IN EACH STATE AND TERRITORY OF AUSTRALIA FOR THE WEEK ENDED SEPTEMBER 15, 1956.[1]

Disease.	New South Wales.	Victoria.	Queensland.	South Australia.	Western Australia	Tasmania.	Northern Territory.	Australian Capital Territory.	Australia.
Acute Rheumatism	1	9(5)	5(2)	..	..	..	..	..	15
Amœbiasis	..	..	..	..	..	..	..	1	1
Ancylostomiasis	..	..	1	..	..	..	..	..	1
Anthrax	..	..	..	..	..	..	..	..	..
Bilharziasis	..	..	..	..	..	..	..	..	..
Brucellosis	1	..	..	..	..	..	..	..	1
Cholera	..	..	..	..	..	..	..	..	..
Chorea (St. Vitus)	..	..	..	..	..	..	..	..	..
Dengue	..	..	..	..	..	..	..	..	..
Diarrhœa (Infantile)	8(7)	24(18)	1	..	..	..	..	..	33
Diphtheria	..	1(1)	..	..	3(3)	..	..	..	4
Dysentery (Bacillary)	..	10(10)	..	1(1)	..	..	2	..	13
Encephalitis	..	..	..	..	..	..	..	..	..
Filariasis	..	..	..	..	..	..	..	..	..
Homologous Serum Jaundice	..	..	..	..	..	..	..	..	..
Hydatid	..	..	..	..	..	..	..	..	..
Infective Hepatitis	37(25)	32(16)	..	9(6)	2	9(2)	5	2	96
Lead Poisoning	..	..	..	..	12	..	..	..	12
Leprosy	..	..	..	..	5	..	..	..	5
Leptospirosis	..	..	2	..	..	..	..	..	2
Malaria	..	..	1(1)	..	..	..	1	..	2
Meningococcal Infection	4(1)	7(6)	4(1)	..	..	1	..	..	16
Ophthalmia	..	..	..	..	..	..	..	..	..
Ornithosis	..	..	..	..	..	..	..	..	..
Paratyphoid	..	..	..	..	..	..	..	1	1
Plague	..	..	..	..	..	..	..	..	..
Poliomyelitis	1(1)	2(2)	1	2(1)	..	..	..	..	6
Puerperal Fever	..	..	1	..	..	..	..	..	1
Rubella	..	24(27)	1	3(3)	..	..	..	..	28
Salmonella Infection	..	..	..	..	..	..	..	..	..
Scarlet Fever	1	15(12)	2(1)	8(5)	..	3(1)	..	..	29
Smallpox	..	..	..	..	..	..	..	..	..
Tetanus	..	..	3(1)	..	..	..	..	..	3
Trachoma	..	..	..	..	..	..	..	..	..
Trichinosis	..	..	..	..	..	..	..	..	..
Tuberculosis	28(19)	16(13)	18(6)	4(4)	13(5)	3(3)	2	1	90
Typhoid Fever	..	..	..	..	..	..	..	..	..
Typhus (Flea-, Mite- and Tick-borne)	..	1	..	..	..	..	..	..	1
Typhus (Louse-borne)	..	..	..	..	..	..	..	..	..
Yellow Fever	..	..	..	..	..	..	..	..	..

[1] Figures in parentheses are those for the metropolitan area.

South Wales, Queensland and Tasmania of Medical Benefits Fund of Australia. The polls were declared at the Council meeting held on September 10, and details of the votes received by the candidates and the names of the members elected are as follows:

New South Wales: Dr. H. R. R. Grieve 321, Dr. G. L. Howe 300, Dr. A. M. Johnson 296, Dr. S. P. Bellmaine 287, Dr. R. S. Day 279, Dr. M. S. Alexander 233, Dr. D. G. Hamilton 215, Dr. A. R. H. Duggan 197, Dr. R. J. Hunter 169, Dr. R. A. R. Green 151. There being six vacancies on the committee, Dr. Grieve, Dr. Howe, Dr. Johnson, Dr. Bellmaine, Dr. Day and Dr. Alexander were declared elected.

Queensland: Dr. J. R. Adam 119, Dr. B. N. Adsett 111, Dr. A. E. Lee 110, Dr. L. A. Little 102, Dr. N. M. Gutteridge 50. There being four vacancies on the committee, Dr. Adam, Dr. Adsett, Dr. Lee and Dr. Little were declared elected.

Tasmania: Dr. W. W. Wilson 42, Dr. A. W. O. Young 36, Dr. R. Wall 30, Dr. G. M. W. Clemons 27. There being three vacancies on the committee, Dr. Wilson, Dr. Young and Dr. Wall were declared elected.

Royal Australasian College of Surgeons.

PRIMARY EXAMINATION FOR THE F.R.A.C.S.

A PRIMARY EXAMINATION in anatomy (including normal histology) and applied physiology and the principles of pathology for Fellowship of the Royal Australasian College of Surgeons will be conducted in Melbourne in March, 1957. The written papers will be held on Thursday and Friday, March 7 and 8, 1957.

The examination is reciprocal with primary examinations for Fellowship of the Royal College of Surgeons of England, the Royal College of Surgeons of Edinburgh, the Royal College of Surgeons in Ireland and the Royal Faculty of Physicians and Surgeons of Glasgow.

Each examination is open to graduates of not less than one year's standing of a medical school approved by the Council of the College for the purpose. Candidates must submit evidence of their qualification and of the date of acquirement thereof.

Forms of application for admission to the examination may be obtained from the Secretary, Royal Australasian College of Surgeons, Spring Street, Melbourne. The fee for admission or readmission to the examination is £15 15s. (*plus* exchange on cheques drawn on banks outside Melbourne). The fee must be forwarded with the form of application so as to reach the Secretary at his office in Melbourne not later than January 25, 1957. It is stressed that entries close at the College office in Melbourne on January 25, 1957, and that late entries cannot be accepted.

FACULTY OF ANÆSTHETISTS.

Primary Examination for the F.F.A.R.A.C.S.

A PRIMARY EXAMINATION in anatomy, physiology, pharmacology and pathology for the F.F.A.R.A.C.S. will be conducted in Melbourne in March, 1957. The written papers will be held on March 7 and 8, 1957.

The examination is open to graduates of not less than one year's standing of an approved medical school. Candidates must submit evidence of their qualification and of the date of acquirement thereof.

Forms of application for admission to the examination may be obtained from the Secretary, Faculty of Anæsthetists, Royal Australasian College of Surgeons, Spring Street, Melbourne. The fee for admission or readmission to the examination is fifteen guineas (£15 15s) (*plus* exchange on cheques drawn on banks outside Melbourne). The fee must be forwarded with the form of application so as to reach the Secretary at his office not later than January 25, 1957. It is stressed that entries close at the Faculty office in Melbourne on January 25, 1957, and that late entries cannot be accepted.

Nominations and Elections.

THE undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Darvas, Frank Alexander, registered in accordance with the provisions of Section 17 (1) (c) of the *Medical Practitioners Act*, 1938-1955, 7/1 Edward Street, Bondi, New South Wales.

Gregory, Geoffrey Collen, M.B., B.S., 1950 (Univ. Melbourne), Surgery, Blende Street, Broken Hill.

The undermentioned have been elected as members of the New South Wales Branch of the British Medical Association: Alam, Edward John, M.B., B.S., 1956 (Univ. Sydney); Davis, John Raymond, M.B., B.S., 1956 (Univ. Sydney); Evans, David Stanley, M.B., B.S., 1956 (Univ. Sydney); Herron, John Tennent, M.B., B.S., 1956 (Univ. Sydney); Ramrakha, Ramchandra, M.B., B.S., 1956 (Univ. Sydney); Denholm, George Cooper Anderson, M.B., Ch.B., 1955 (Univ. St. Andrews); Hansen, Peter John, M.B., B.S., 1955 (Univ. Sydney); Llewellyn-Smith, Hazel May, M.B., B.S., 1955 (Univ. Sydney); McEwen, Brian William, M.B., B.S., 1955 (Univ. Sydney).

Diary for the Month.

OCT. 9.—New South Wales Branch, B.M.A.: Executive and Finance Committee.
OCT. 9.—New South Wales Branch, B.M.A.: Organization and Science Committee.
OCT. 12.—Tasmanian Branch, B.M.A.: Branch Council.
OCT. 12.—Queensland Branch, B.M.A.: Council Meeting.
OCT. 15.—Victorian Branch, B.M.A.: Finance Subcommittee.

Medical Appointments: Important Notice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Medical Secretary, 135 Macquarie Street, Sydney): All contract practice appointments in New South Wales.

Queensland Branch (Honorary Secretary, B.M.A. House, 225 Wickham Terrace, Brisbane, B17): Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 80 Brougham Place, North Adelaide): All contract practice appointments in South Australia.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to the Editor, THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, New South Wales. (Telephones: MW 2651-2-3.)

Members and subscribers are requested to notify the Manager, THE MEDICAL JOURNAL OF AUSTRALIA, Seamer Street, Glebe, New South Wales, without delay, of any irregularity in the delivery of this journal. The management cannot accept any responsibility or recognize any claim arising out of non-receipt of journals unless such notification is received within one month.

SUBSCRIPTION RATES.—Medical students and others not receiving THE MEDICAL JOURNAL OF AUSTRALIA in virtue of membership of the Branches of the British Medical Association in the Commonwealth can become subscribers to the journal by applying to the Manager or through the usual agents and booksellers. Subscriptions can commence at the beginning of any quarter and are renewable on December 31. The rate is £5 *per annum* within Australia and the British Commonwealth of Nations, and £6 *per annum* within America and foreign countries, payable in advance.